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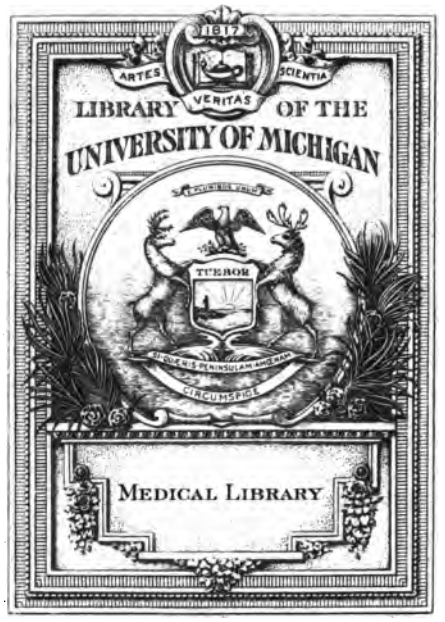
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THE

CHICAGO

MEDICAL JOURNAL.

EDITED BY

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THE

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ORIGINAL CONTRIBUTIONS.

Clinical Lectures on Diseases of the Eye. By E. L. HOLMES, M. D., Lecturer on Diseases of the Eye in Rush Medical College, and Surgeon to the Chicago Charitable Eye and Ear Infirmary.

THE ACCOMMODATION OF THE EYE TO DISTINCT VISION AT DIFFERENT DISTANCES.

GENTLEMEN,—Before discussing the anomalies of accommodation, it is well to examine the normal formation of the eye with some principles of optics especially connected with vision.

An eye is said to be normal in formation, when its refracting media possess such a degree of convexity, with a power of accommodation, and with the distances between the retina, lens and cornea such, that the rays of light may be brought to a focus upon the retina from objects at any distance more than five inches from the cornea.

Although the eye may thus adjust its focus for objects within the limits described, distinct perception of these objects depends upon the sensitiveness of the retina, which, like other nervous structures, requires a certain amount of impression to produce sensation. As the nerves of the skin, for instance, fail to perceive slight changes in degrees of heat, or in force of galvanic influence, so the retina fails to perceive objects, either when they are too dimly lighted, or so far away, that the images on

the retina are too small. The most sensitive portion of the skin perceives the contact of the two points of a pair of compasses as two distinct impressions, only when the points are separated from each other more than seven or eight tenths of a line. The retina is vastly more sensitive since it can distinguish two luminous points, as separate objects, when they form images on the retina less than one three-thousandth of an inch apart. It may be here stated, that suitable exercise of the eye upon very minute near objects, or very distant objects, increases the sensitiveness of the retina.

Objects too brilliantly illuminated, or presenting too great contrasts of light and shade, are not easily distinguished, even when the focus of the eye is properly adjusted. As illustrations, may be mentioned the difficulty, if not impossibility, of distinguishing the form of the sun's disk in a partial eclipse; and also the discomfort experienced in looking at objects while facing a bright window.

In proportion as the sensitiveness of the retina or optic nerve is impaired by disease, the eye fails to perceive objects; and yet in some diseases of the nerve, vision is quite good, if the images on the retina are increased in size by placing the objects nearer, or if objects are illuminated more brightly than usual. Many patients with amaurosis of slight degree are thus able to perform quite readily the ordinary duties of life. Such patients often compensate for the abnormal condition of the nervous structure by the use of double convex lenses, which produce larger images on the retina.

There are a few facts regarding the passage of light through convex lenses, which should be noticed in connection with the subject of accommodation. Rays of light, as we have seen, from very distant objects, possess so slight a degree of divergency, that they may be regarded for all practical purposes as parallel. Such rays form images on a screen at a distance behind a lens equal to the radius of its curvature. When distant objects are moved towards the eye, within certain limits, the rays possess so little divergency, that they may still be regarded as parallel, since very distinct images will be produced at the focus of parallel rays.

Hence the images of two objects of suitable size, one placed at seventy and the other at fifty feet from a photographer's camera, are both found to be distinct on the ground glass screen. Hence, also, remote objects at different distances may be seen distinctly with no perceptible effort of the muscles of accommodation.

The rays of light from *near* objects, however, as they are brought nearer the eye, become so rapidly more divergent, that comparatively slight changes of distance require great effort on the part of the adjusting apparatus.

The internal recti muscles perform an important part in connection with the act of accommodation. While in rotating the eyes from one side to the other, each internal rectus acts with the external rectus of the other eye. In accommodating the eyes to near objects, the two internal recti act together, rendering the visual axes convergent, or, in other words, "fixing" the eyes upon one point. These muscles, however, cannot, except in abnormal conditions of the eye, "fix" both eyes upon one point nearer the cornea than five inches. It should be remarked, that the degree of convergence of the visual axes increases so slightly, as very remote objects are brought nearer the eye, that we have scarcely any perception of muscular effort in the internal recti for changes in distance of remote objects; while great muscular effort is required when *near* objects are brought nearer the eye.

As the iris, by the contraction of the pupil in looking at near objects, excludes from the eye the more divergent portion of the rays which fall on the cornea, it can be readily understood, from what has been said above, that the rays which pass through the contracted pupil possess so little divergency, that they form distinct images on the retina, even when the eye (lens) is not accurately adjusted for these objects.

Upon the same principle, a minute aperture in a thin disk of metal, placed in front of the pupil, and as near the cornea as possible, enables us to distinguish objects distinctly with scarcely any aid of the adjusting apparatus. Thus the iris not only regulates the amount of light which enters the eye, but it also serves as a diaphragm in excluding the more divergent rays of light.

The distribution of nerves to the parts of the eye upon which the power of accommodation depends, is quite complex, and not altogether well understood. Upon branches of the fifth pair of nerves depends sensation in these organs of the eye. From the third pair are supplied the nerves of motion in the internal recti and the annular muscular fibres of the iris, and possibly of the ciliary band. From the sympathetic are probably supplied the nerves of motion to the radial fibres of the iris and ciliary muscle.

For further development of these interesting subjects, especially for a description of the manner of measuring and expressing by figures the extent of accommodation, I must refer you in particular to the works of Donders and Jaeger.

The Hot Springs of Arkansas—Location—Character and Products of the Surrounding Country—Medicinal Qualities of the Waters, etc. By R. M. LACKEY, M. D., Asst. Surg. and Brvt. Capt. U. S. Vols.

Having determined upon a visit to the Hot Springs of Arkansas, the mild fair weather of October, and the dry roads, seemed especially favorable for a pleasant and profitable trip, and on the 13th we left this place for the Springs.

The Hot Springs are situated in Hot Springs County, sixty miles in a southwesterly direction from Little Rock. The country between Little Rock and the Springs is hilly and poor, the ground rocky and heavily timbered. Yellow pine, white, black and the Spanish oaks, and the black jack, constitute mainly the large growth, and paw paw, sassafras, dogwood, greenbrier, elder bushes, etc., the undergrowth.

The plantations on the road are scarce, and mostly on the bottom lands, along the larger streams. The small farms on the uplands are nearly all deserted, on account of the war in some cases, and in others, because too poor and unproductive to afford the inhabitants the means of subsistence. The people of this country partake of the character—physically, mentally and morally—that so invariably pertains to the poor whites of

the South. The men are destitute of energy, industry and enterprise. The women, especially, bear the impress of that pathological state induced by the habitual and excessive use of tobacco in some form, bad food and malaria. They may be said to have neither form nor comeliness. Even in the mountainous districts of Arkansas, malarial diseases prevail very generally and in their most obstinate form. And this brings to mind a case of Arkansas surgery, of which I obtained some account. A lady came to a distinguished surgeon with a large abdominal tumor, which he diagnosed as ovarian. An operation for the removal of the tumor was decided upon, but what was the surprise of the surgeon to find, when coming down upon the tumor, that it was nothing more nor less than the woman's *spleen!* The enlarged condition and abnormal situation of the organ was easily accounted for when it was known that she had lived many years on the Washita River, where for people to have ague is the rule, and not to have it the exception.

In the immediate vicinity of Hot Springs the country is mountainous, the highest peaks reaching an altitude of five hundred feet above the valleys. On the southern flank of one of these mountains or ridges, are situated the Hot Springs. There are forty-two principal fountains from which the thermal waters issue; some of them are at the foot of the mountain, and the others scattered over its slope up to the heighth of one hundred feet above the creek, into which the waters flow from all of the springs. All of the forty-two springs are contained within the space of a few acres, and are so near together in some cases, that each hand may be placed in the water of a different spring at the same time; and what is remarkable in one instance, the waters of two of the springs that are so near together, differ greatly in temperature,—that of one being only one hundred degrees F., while the other, but three or four feet distant, is one hundred and thirty-four degrees F. The temperature of the waters at the fountain heads ranges from one hundred to one hundred and fifty degrees F. One would suppose, however, from dipping the hand into the hottest, that the water was almost at the boiling point, as the hand must be withdrawn instantly; and it surely is "scalding

hot," for the quantity of hog hair seen near one of the springs, demonstrates that the water has been efficaciously used for scalding hogs; and the egg shells to be seen, are evidence that eggs may be cooked.

The steam arising from the water, and the constant escape of carbonic acid gas in bubbles, gives it a close resemblance to boiling water. The quantity of hot water issuing from these springs is immense; and so much water from so many different sources near together, splashing and gurgling down the steep mountain side, is grand and interesting. The creek formed by the water from all the springs is sufficient to afford a fine water-power; but no advantage has been taken of it as yet. The steam arising from the hot waters fills the valley early in the morning like a dense fog.

Hot Springs Ridge, on the side of which the springs are situated, seems to be mainly a mass of Novaculite rock. It is a beautiful white rock, resembling the finest varieties of marble, and is what is commonly known as "Arkansas Whetstone," or "Ouachita Oilstone." In company with Dr. G. W. Lawrence, a resident at the Springs, and to whom we are indebted for many courtesies and much valuable information, we visited a fine quarry, where this rock is taken out and hauled off to be made into whetstones. For surgical instruments and fine-edged tools, its grit is unsurpassed.

This Novaculite rock, which is so abundant throughout the mountainous portions of the State, belongs to the age of the millstone grit, and is composed of almost pure silica, as is shown by the following analysis taken from Owen's "Geological Survey:"

Silica, in 100 parts,	98.00
Alumina, tinged with oxide of iron,	.80
Soda,	.50
Potash,	.60
Traces of lime, magnesia and hydrofluoric acid and moisture,	.10
	100.00

That portion of the side of the mountain over which the

waters flow is covered with calcareous tufa: near the foot of the mountain the accumulation of this tufa forms a high cliff, which, from the slowness of its formation by depositions from the water, must have been long ages in forming.

There is quite a thick growth of dwarfed trees covering the slope of the mountain, and vegetation grows within a very short distance of the hot water,—even in places upon these masses of calcareous tufa, bushes are growing wherever the hot water does not come in direct contact with their roots. The prickly pear, a species of cactus, especially grows quite luxuriantly on the tufaceous formations.

There are no igneous rocks visible within ten miles of the Springs, and the evidences of volcanic action are entirely wanting.

Some of the springs have been named in accordance with the medicinal substances they are reputed to contain in such quantities as to produce a decided effect upon the animal functions of those who use the water freely; and invalids who visit the place in search of health, drink immense quantities of the water with the firm belief that it contains the antidote for all their ills. For example, one is known as the "Arsenic Spring," another as the "Alum Spring;" but, according to any analyses that have yet been made, it does not appear that arsenic or alum are to be found in the waters of these springs, even in the minutest quantities. I give below the analysis of the so-called arsenic spring, taken from Owen's "Geological Survey."

In 1000 grammes of the water, the constituents were as follows:

	Grammes.
Lime,	0.059024
Silicates,	0.045600
Sulphuric acid,	0.019400
Magnesia,	0.007629
Chlorine,	0.002275
Soda,	0.004650
Potash,	0.001560

Not only do the ignorant people—the natives—attribute great medical virtues to the Hot Springs, but some of them believe, it would seem, that the waters of certain of the springs

afford nutriment also; for a colored man, from a plantation near by, informed us, that if we would season the water of a certain spring that he pointed out, it would "taste jis like chicken broff." Sambo's story may have some shadow of truth, but his "chicken broff," I imagine, would be homeopathic in character, and could be appreciated only by the "little pill" doctors.

The waters of the Hot Springs are remarkable for their purity. They contain but very small quantities of mineral substances for spring water, and these consist mainly of silica and carbonate of lime. There is, however, small portions of iron in the water of some of the springs; and there are several chalybeate springs of cold water near by. One of these, "Fairchild's Chalybeate Spring," three miles distant, affords a large amount of water—enough to drive a small mill which had been erected to grind corn. There are sulphur springs also in the neighborhood.

Various theories have been advanced in regard to the cause of the high temperature of these waters. The opinion of Prof. Owen seems to be the most plausible. It is his belief that it is due to the "internal heat of the earth, that the waters are completely permeated by highly-heated vapors and gases which emanate from sources deeper-seated than the water itself."

It is evident, from the analyses of the waters, that their medical virtues are due to their high temperature mainly, if not altogether. All the mineral constituents most abundant are substances that have little or no action upon the animal functions. The large amount of carbonic acid gas contained in the water, it is thought, may produce an exhilirating effect on the system, and being so charged with this gas, invalids are enabled to drink large quantities of it without being nauseated, as is ordinarily the case from drinking large draughts of warm water. The water from the springs, from twenty-five to one hundred feet up the mountain, can be conducted in troughs to tanks above the bath-houses, and baths of any temperature desired can be had; while the water from the lower springs can be retained in tanks under the bath-rooms, so that the advantages of vapor baths may be obtained better than by any means ever

invented or used by the "steam doctors." It is by a judicious system of bathing and steaming, causing a copious diaphoreses and arousing the absorbents, and the eliminative functions of the system, that the curative properties of these waters are to be obtained. The benefit to be derived must, however, be confined mainly to a certain class of disorders.

It is for rheumatic and syphilitic diseases that people mostly resort to these springs; some cases that seem to be purely of a neuralgic nature are, however, promptly relieved. There are probably more old syphilitic cases than any other form of disease that find their way there, and Dr. Lawrence, a very intelligent medical gentleman, who has treated an immense number of these cases, informed us that the judicious use of baths, in conjunction with other treatment indicated, proves very efficacious in old intractable cases of syphilis and rheumatism.

The beneficial results obtained, in many cases, are brought about mainly, I have no doubt, by administering to minds diseased. The scenery about the springs is wild and magnificent, and the springs themselves are certainly among the great natural wonders of this continent; and many who go there are impressed with the belief that anything so wonderful must possess great curative powers. The judicious use of electricity with these baths—constituting the electro-thermal bath—would, in my opinion, render them applicable to a much larger class of cases, and more efficacious.

Previous to the breaking out of the war, there were indifferent accommodations at the springs for seven or eight hundred persons, and we were informed that as many as one thousand visitors had been there at once. The buildings were, however, nearly all burned down about two years ago, and now the boarding and bathing accommodations are scarcely sufficient for one hundred persons. The title to the property, it seems, has not been settled, and there are several claimants. It is to be hoped that the United States will establish its claim to the property, and erect an hospital there for the treatment of the large number of rheumatic soldiers that are always to be found in our army. A recommendation of this kind was made to the

Surgeon General by Lt. Col. Jos. R. Smith, U. S. A., Med. Dir. Dep't of Ark., but was, I believe, disapproved at Washington. It is unfortunate as it is, for the improvement of the place is retarded, which is necessary to make it a beneficial place of resort for invalids, which I believe it is destined to be, despite the hilly, rocky, uninhabitable country to pass over in getting there.

A few miles from the Hot Springs, west, in Montgomery county, are the most extensive mines of rock crystals known on this continent. We procured some specimens of these masses of quartz crystals, that I imagine equal in brilliancy those of the Alps.

We also visited Magnet Cove, ten miles southeast from the springs, where large quantities of magnetic iron ore are found, together with an extensive variety of other minerals. The great quantities of iron pyrites (sulphuret of iron) found in this cove induced the so-called Confederate Government to erect an establishment there for the manufacture of sulphur with which to make gunpowder. We had the privilege of examining the first specimen that was made, which was a mass of tears just as it came from the retort. This was, I believe, the first of this article ever manufactured in the late Southern Confederacy. The quality of the sulphur was fair, and quite a quantity of it had been made and sent off before our army occupied that country.

Owen enumerates about twenty different varieties of minerals which are found in Magnet Cove, within an area of less than two miles. Much of the iron ore has polarity; titanic acid enters into its composition, and is also disseminated amongst the other minerals of the cove. In some parts of this cove the magnetic needle is strongly affected, and in the lower portions igneous rocks are found—the nearest ones to the Hot Springs.

Arkansas, though not now in a condition of physical, moral and political healthfulness, has vast mineral and other resources which the rapid advancement of the age will soon cause to be developed, and she may yet occupy an enviable position amongst her sister States of the Republic.

U. S. A. Gen'l Hospital, Little Rock, Ark., Nov. 10, 1865.

NEW YORK CORRESPONDENCE.

MESSRS. EDITORS,—Thinking that some fragmentary correspondence from New York may interest your readers, the following is submitted:

The New York Woman's Hospital, at the corner of Madison avenue and 29th st., is a State institution, which was originated with special reference to the treatment of vesico-vaginal fistula while the discoveries of Dr. J. Marion Sims were new in the minds of the people and of the profession.

Dr. Sims gave the hospital its reputation, and the hospital gave Dr. Sims a field for his operations on patients who could not pay for attendance.

In 1862 Dr. Sims went to Paris to practice the new art, and he is now in London, where his old success is said still to attend him.

Upon the departure of Dr. Sims, the hospital came under the charge of Dr. Thomas Addis Emmet, who had been Dr. Sims' assistant, and whose dexterity and success have kept up the reputation of the institution. About fifty cases of vesico-vaginal fistula are operated upon annually, and about a hundred and fifty other cases of diseases and deformities peculiar to women are operated upon with the skill of an expert, and with proportionate success. Dr. Emmet does not claim the success in ovariotomy boasted of by many operators, he having lost just half his cases.

His operation for procidentia uteri, which is a modification of that of Dr. Sims', is claimed to be free from the defects of all previous operations.

The union of two parallel lines permits the uterus to crowd itself into the narrow canal on one side or the other of the longitudinal septum.

The hour-glass vagina, made by causing the union of a transverse belt of denuded surface, was found to be liable to the difficulty of strangulating the neck of the uterus, and of gradually descending to the os externum, pressed down by the weight above.

Dr. Sims adopted the expedient of peeling off the mucous membrane corresponding with two sides of a triangle, of which the apex is at the lower end of the vagina behind, and the base at the upper. The union of these made a pocket behind, into which it was found the uterus would insinuate itself, even in the retroverted position, making it necessary in extreme cases to slit open this septum and restore the vagina to its former state.

Dr. Emmet's modification consists in dissecting off a belt of mucous membrane across the base of this triangle, so that when the denuded surfaces are made to adhere, the pocket behind becomes a perfectly closed sac, the top of which constitutes a floor upon which the uterus may rest without danger of strangulation.

Dr. Emmet employs the interrupted suture with silver wire for all operations about the genital organs, dispensing with clamps, buttons and quills, thinking there should never be more strain than the suture alone will hold.

Besides the indoor patients, about a thousand outdoor patients are prescribed for annually.

Sims' duck-bill speculum is uniformly employed in vaginal examinations, and to steady the uterus a sharp-pointed tenaculum is thrust into any convenient place about the mouth or neck, and so destitute of tactile or painful sensibility is the part, that the patient rarely feels the puncture.

For exploring the interior of the uterus, Simpson's sound is altogether abandoned, and a copper wire, a little larger than a knitting needle, galvanized, and mounted upon a convenient handle, is employed. This is carefully introduced, having a moderate curve, and as soon as it meets resistance, it is withdrawn, and curved between the fingers according to the supposed direction of the cavity, and the withdrawals, bendings and introductions are repeated until the sound has the curvature which will permit its introduction without meeting resistance, the mouth of the uterus being all the time held in one place by the tenaculum.

A conductor for medication, which may be an untempered watch-spring, mounted upon a convenient handle, is then bent

to the same curvature, and wrapped with cotton wool, dipped in a strong tincture of iodine, a solution of chromic acid, of nitrate of silver or other substance, and introduced to the fundus of the uterus. The patient is then required to keep quiet, to avoid the colic which may arise from the sympathy of the intestines with the uterus when the patient is allowed to move about.

Procidentia, with increased weight of the uterus, is treated for the removal of the chronic inflammation before any operation is performed on the vagina.

Dr. Emmet makes the criticism upon the operation for dysmenorrhœa, practiced by Dr. Simpson, of slitting up the lateral parts of the neck, that in the first place, the stricture is higher up, at the vaginal junction with the uterus, and is generally caused by flexure occasioned by the contraction attending unequal distribution of chronic inflammation, with unequal deposition of contractile plastic material. And in the next place, this division permits the anterior and posterior lips to be drawn apart by the traction of the anterior and posterior walls of the vagina in standing, walking and lifting. This keeps up irritation and inflammation, extending higher up, with not only a continuance but an aggravation of the dysmenorrhœa.

Dr. Emmet scarifies and reunites these surfaces, whether they have resulted from accident or design, and thus restores the annular character of the os.

For the reason here explained, his incision, if he makes any, for anteflexion, is anterior, and by an instrument introduced concealed, and cutting out as it is withdrawn. After any incision of the uterus, the vagina is plugged, and the woman left in a horizontal position to avoid hemorrhage, of which it is admitted there is great danger. D. P.

21 W. 12th-st., N.Y., Jan. 12th, 1866.

CLINICAL REPORTS.

RUSH MEDICAL COLLEGE DISPENSARY, January 3, 1866.

SURGICAL CLINICS BY DR. EDWIN POWELL.

REPORTED BY R. M. LACKEY, M. D.

Tumor on the Left Side of the Neck — Operation for its Removal — Laceration of the External Carotid Artery — Recovery.

Female, aged 30 years, married; is anemic and of nervous temperament. Tumor appeared about a year ago, and has gradually increased in size until it has become as large as the fist, and is quite a deformity. The tumor is partly beneath the sterno-mastoid muscle, and is firmly attached to the structures around it. The patient was placed under the influence of chloroform, and the tumor removed: owing to its firm attachments to the vessels, the external carotid artery was lacerated. A ligature was placed on it, however, and one other vessel, and but little blood was lost during the operation. The tumor proved to be cystic, with very thick walls, and containing a small quantity of thick greenish matter.

Jan. 6th. The patient has had a severe cold and cough, which rendered her condition unfavorable for an operation at the time it was done. There has been some swelling about the throat, which has been troublesome; but the wound looks well, and her condition as favorable as could be expected.

Jan. 10th. The swelling has subsided, and the wound looks well and is healing rapidly.

Jan. 17th. Wound nearly healed. Patient leaves to-day for her home in Minnesota.

January 6, 1866.

CASE I. *Stone in the Bladder — Lithotomy by the Lateral Method — A large Phosphatic Calculus Removed — Patient doing well.*

The first case we have to present to-day is one of stone in the bladder. This boy is 16 years of age. He is, as you see, rather small and imperfectly developed for one of his age. Says he has had this disease eight years. He has frequent

and painful micturition; his urine constantly dribbles from him, and when he urinates, the flow is sometimes suddenly stopped, and a change of position is necessary to start it again. This evidence, however conclusive it may seem, should not be relied upon, but resort should be had to sounding. On passing a sound into the bladder, the stone is distinctly felt, and we propose to remove it by the operation of lithotomy.

This operation has undergone many modifications, but the method which has probably been most frequently resorted to is the lateral operation, and is the one we will perform in this case.

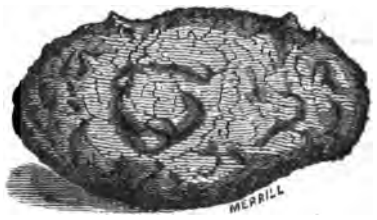
Having first introduced into the bladder a sound, grooved deeply on its convex surface, an incision is made, extending from a point about an inch in front of the anus to the left of the median line, downward and outward, to a point midway between the anus and tuberosity of the ischium. This incision is carried down to the grooved sound in the urethra, then using the sound as a director, with a knife such as I show you, and which is called Sir Astley Cooper's probe-pointed bistoury, the incision is carried down to the prostatic portion of the urethra. I say the incision is to extend down *to* the prostatic portion of the urethra, for I do not regard it as necessary to incise the prostatic portion; for, unless the stone be of an extraordinary large size, this portion of the passage will be large enough to allow of its extraction. At all events, care must be exercised to avoid cutting entirely through the prostate gland, and that portion of the pelvic fascia which is reflected upon the neck of the bladder, for, should this be done, infiltration of urine among the tissues would probably take place.

A difficult part of the operation is in getting into the bladder. The knife may pass too far back, and getting behind the bladder, wound the structures, which should be avoided. Great care is required, then, to keep the beak of the knife firmly in the groove of the staff until the incision is completed. Having carried the incision to the point mentioned, the staff is withdrawn, and the finger introduced into the bladder, and the stone felt for and removed with a lithotomy forceps. There is sometimes another difficult step in the operation—namely, in getting hold of the stone so as to bring it out. The jaws of the

forceps should be opened wide enough to embrace the largest-sized stone, and with this precaution, the difficulty in question may be avoided.

The patient was then placed under the influence of chloroform and the operation performed.

A cut of the stone is here given. It measures one inch and seven-eighths in its long diameter, and one inch and an eighth in its short, and weighs 383 grains.



Jan. 10th. Patient has suffered some from prostration following ths operation, but is doing as well ns could be hoped for in a case which has existed so long that the nervous system has become affected, as in this boy.

Jan. 12th. Doing well; wound looks better.

Jan. 15th. Doing well.

January 9, 1866.

CASE II. *Stone in the Bladder—Lithotomy.*

We have to bring before you to-day another case of stone in the bladder. The patient is a child, three years of age, in whom symptoms of the disease were first noticed last August. He has all the rational signs of the disease which were noticed in the case brought before you at our last clinic; and on passing a sound, the stone, though quite small, can be distinctly felt.

Stone in the bladder is most frequent in childhood and old age, but may occur at any period, and, unfortunately, the difficulties of the operation of lithotomy are greater in the very young and the very old than in middle age. The straining which children always do during the operation, even when under the influence of chloroform profoundly, is extremely annoying. On attempting to pass a sound or the staff into this child's bladder, you see how difficult it is on account of the spasmodic contraction of the sphincters, and, indeed, of the spongy portion of the urethra. But you should not be dis-

couraged by this; the presence of the instrument in the urethra will, after a time, cause the spasmodic action to cease, and you may proceed with the operation.

There are several varieties of urinary calculi—namely, uric or lithic acid, phosphate of lime, phosphate of ammonia and magnesia, oxalate of lime, cystic oxide, and the xanthic acid. These constitute the principal varieties. The lithic acid and phosphate of lime are the most common; the first of these may be known by its being of a hard-brown color, inodorous and smooth. The phosphate of lime is of a pale-brown color, quite smooth, and arranged in lamina.

The patient having been placed under the influence of chloroform, the operation was performed, and a phosphatic calculus removed.

Jan. 15th. Patient doing well; wound looks well.

Fistula in Ano, of eight years' standing—Operation.

The next case I have to bring before you to-day is one of fistula in ano. This man has had the disease eight years; it has not affected his general health much, and certainly does not in this case exist in conjunction with pulmonary tuberculosis, as some believe it does in many cases. I almost covet this man's muscular development. Fistula in ano may be complete or incomplete. In the complete, the sinus extends from an external opening near the anus to one in the gut—forming a false passage, through which gas and feces may escape. A sinus may extend from an external opening near the anus some distance alongside the gut, without opening into it, constituting incomplete or blind fistula.

The treatment for this disease is to cut through the sphincters and allow the wound to heal by granulation from the bottom. It is useless for you to attempt to cure these cases by stimulating injections, etc., for you cause your patient equally as great suffering as by the operation, and without curing the disease; and the patient may subsequently come to the city to be operated on when you can just as well do the operation.

You first examine the parts to see if the fistula is complete

or incomplete, and if there are any small sinuses branching out from the main passage. You then pass a director through the sinus into the gut, and bring out the end at the anus, then with a bistoury, slit up the structures on a director. If any small sinuses exist, they should be slit up also. Introduce a piece of lint between the edges of the wound to prevent immediate union, and allow it to heal by granulation from the bottom.

ABSTRACTS AND SELECTED ARTICLES.

ANATOMY AND SURGERY.

Strangulated Hernia treated successfully by Inflation of the Bowels, and shaking the patient while in an inverted position.

Richard Griffin, Esq., in an article in the *British Medical Journal*, reports six cases of strangulated hernia treated successfully by the above method, after the failure of other remedies. The bowels were inflated by means of a bellows, the nozzle of which was introduced into the anus.

In one of the cases reported, the reduction was effected after strecoraceous vomiting had existed for three or four days. But the patient died from the diarrhœa induced by the large amount of drastic mogatives which had been administered. In four of the six cases, the hernia was reduced by inflation of the bowels alone; in the other two, this means failing, shaking the patient while in an inverted position was resorted to with success.

Bromine as an Antidote to Zymotic Poisons—Its Application in the Treatment of Hospital Gangrene, Syphilis and Small-pox.

The above is the title of an article by Dr. E. A. Clark, published in the *St. Louis Medical and Surgical Journal.*

Dr. Clark thinks that the use of bromine in the treatment of hospital gangrene, has developed the fact that it is an antidote to all animal poisons; and that iodine, though similar

in its mode of action, is greatly inferior to bromine in the extent of its effects, especially in its local application. In defining the analogy of these medicines he compares them to the different preparations of bark, "which, in some instances," he says, "may be given in substance with excellent results and meet the indications in the case. Yet who would think of giving bark in substance; or cinchona in a case of pernicious intermittent, in place of quinine." * * * "Then the relative value of bromine and iodine, as therapeutic agents, can only be estimated by the comparative results." * * * * *

"Bromine also exerts an action on the blood in destroying zymotic poisons, which iodine does not possess to the same extent. The greater volatility of bromine also gives it an advantage in application which iodine does not possess, as in instances when the fumes of the medicine are required for disinfectant purposes."

Dr. Clark reports some cases of hospital gangrene successfully treated by him with bromine, and gives directions for its application so that it may prove effectual.

He says further: "In addition to the use of bromine in hospital gangrene, I have also used it as a local application in the treatment of syphilis; my experience with the remedy has not been sufficient, however, to warrant the expression of a positive opinion in its favor, as I have used it in only three cases, one of which was an indurated chancre, to which bromine was applied in substance the first time, and subsequently with the following solution:

℞	Bromine,	ʒss.	
	Bromide of potassium,	ʒss.	
	Aquae dist.,	℥ss.	M.

This solution was applied to the chancre once every other day, until four applications were made; during this time, however, the patient had taken mercury to the extent of procuring slight ptyalism, which was persevered in until the chancre had quite healed, requiring in all fourteen days." The other cases were soft chancre, to which bromine was applied at the same time that mercury was administered, followed by satisfactory results.

Dr. Clark used bromine, also, in two cases of small-pox with satisfactory results. It did not abort the disease, but modified it. (This agrees with our own observations of the action of this remedy in small-pox.—EDS. JOUR.)

United States Army Surgical Reports.

The Surgeon-General has just published Circular Number Six for the information of the medical officers of the army. The circular comprises reports from Brevet Lieutenant-Colonel George A. Otis, U. S. Volunteers, having charge of the surgical, and Brevet Major J. J. Woodward, U. S. Army, having charge of the medical history of the rebellion. From the surgical report it appears that complete register of the wounded are in course of preparation, in which over eighty-seven thousand cases of wounds, and seventeen thousand surgical operations have been recorded up to September, 1865, the work of registration being still very far from complete. The material collected is enormous, and embraces a mass of facts which on many subjects exceed in number and value all previous observations in this field.

In the late war the monthly reports from a little more than half the regiments in the field, give for the year ending June 30, 1862, an aggregate of 17,496 gun-shot wounds. The report from rather more than three-fourths of the regiments for the year ending June 30, 1863, give a total of 55,974 gun-shot wounds. The battle-field lists of wounded for the years of 1864–65, include over 114,000 names.

The surgical specimens of the Army Medical Museum number 5480, and not only in specimens of recent injuries, but in illustration of reparative progress after injury, of morbid processes, of the results of operations and surgical apparatus and appliances, this institution is richer, numerically at least, than the medico-military museums of France or Great Britain.

The medical staff that served in the late war was composed of a Surgeon-General, one Assistant Surgeon-General and Medical Inspector-General, 16 medical inspectors, 170 surgeons and assistant surgeons of the regular army, 362 volunteer staff surgeons and assistant surgeons, 3000 regimental surgeons and assistant surgeons of volunteers, 2500 acting assistant surgeons, or physicians serving under contract, and six medical storekeepers.

The second report, by Major Woodward, contains an outline of the material collected for the medical branch of the history. It embraces all the information possible with regard to the sickness and mortality of the army during the war, and especially whatever related to the nature and causes of those afflictions which were the chief occasion of death and disability. The mortality from disease alone was forty-eight and seven-tenths per one thousand of mean strength for the first year of the war, and sixty-five and two-tenths for the second. The total number of deaths from disease reported for the first year was 14,183, and 42,010 for the second. These figures do not include those who died while absent as prisoners of war or after having been discharged the service for disability. The number constantly sick was about ten per cent. of the strength. The total number of cases treated by the medical department, including wounds and injuries, was 878,918 during the first year, and 171,183 during the second. The most fatal disease was camp fever, of which there were 213,260 cases, and 19,459 deaths, during the two years. Next come diarrhœa and dysentery, 725,675 cases and 11,560 deaths. The inflammation of the respiratory organs, 304,284 cases and 8090 deaths. Venereal diseases were much less frequent than the experience of other armies would have led us to expect, still eighty-four men in every thousand suffered during the first year, and sixty-five during the second—the total number of cases being over thirty-nine thousand. Twenty-eight thousand six hundred and twenty discharges for disability were reported during the first year, or about nine per cent. of the strength of the army.

It appears that at the medium there were 202 general hospitals, 136,894 beds for patients. During the war over a million were treated in these, of whom but one in twelve died. Dr. Woodward says, never before in the history of the world has the mortality in military hospitals been so small, and never have such establishments so completely escaped from diseases generated within their walls. Complete reports for the first year of the war from troops in the field and in garrison, represent an average strength constantly present during the year of 281,117 men; in hospital constantly present, 9759 men; total, 290,936, among whom were 14,183 deaths from disease. The number of deaths recorded is much less than the real number, as it does not include prisoners of war and other absentees. For the second year in field and garrison, 598,821; in hospital, 45,687; total, 644,508; of whom there were 42,010 deaths from disease. These mortality rates from disease are much smaller than is usual with armies in a time of war, and are much less than those

of the allied armies in the Crimea, of our own army in the Mexican war. The proportion of deaths from disease for the third and fourth years was rather diminished.—*Despatch to Daily Advertiser.*

An Operation for Fistula in Ano Two Hundred Years Ago.

M. Le Roi, in his *Curiosities Historiques*, gives the following interesting account of a "grand operation" performed on Louis XIV.:

On the 18th of November, 1686, Versailles was astounded with the news that Louis XIV. had undergone the "*grand operation*," as it was then called, for fistula *in ano*. An abscess at the margin of the anus of the king had been discovered in February, 1686; a Felix de Tassy, his chief surgeon, at once proposed to open it. But, as Dionis remarks, "the deference to opinion necessary for a cure is not always found among the great." A thousand *infallible* remedies were immediately proposed; and of these, a plaster made by Madame de la Daubiere was selected as preferable to the lancet of the surgeon; and madame herself, as the chronicle tells, assisted in its application. The plaster, however, was removed five days later, having only increased the king's sufferings; and it was at last resolved, on the 23d, that the abscess should be opened. But, contrary to the wishes of Felix, caustic was used for the purpose, instead of the knife. The result was that, when the caustic slough fell off, "the pus ran out of a small hole." Soon afterwards it was discovered that the fistula communicated with the interior of the gut; and an operation for its cure was therefore necessary.

Hereupon the king was again overwhelmed with the promises of infallible curers of *tumors*. Louvois, the minister, however, being in some sense responsible for the life of the king, would not allow any of their remedies to be applied to the king without having them previously tried on others. Thus, for example, the use of the waters of the Bareges having been recommended, and having taken the fancy of the king himself, four persons with fistula were sent to Bareges, under the charge of Gervais, surgeon of La Charite, who had a great reputation in the cure of tumors. They were treated in a variety of ways, internally and externally, with the waters, for a long time; but the result was, says Dionis, that at the end they were no nearer a cure than when they started at Bareges. Next came a court lady, who reported that she had been cured of a fistula at the waters of Bourbon. Consequently four other patients with fistula were sent there, under one of the king's surgeons; but they also

returned uncured. Still Louvois was besieged with promises of a cure; and, not wishing to throw away a chance, had several rooms in his ministerial hotel at Versailles fitted up for the reception of all fistula *in ano* patients who were willing to have remedies tried upon them. The experiments were carried on for a length of time; but all the *infallible* waters, ointments, etc., turned out complete failures.

Of all these proceedings the king was informed by Louvois and Felix, who urged upon him that all attempts to cure the fistula without operation were in vain. Before finally deciding, the king sent for Bessieres, who was then in great repute at Paris; and by him was told that "all the remedies in the world would do nothing without an operation." Thereupon the king determined to undergo the operation. But *what* operation? At that time there lived at Paris one Lemoyne, who had great repute as a curer of fistula. Of him Dionis writes:

"His method consists in the use of a caustic, spread over a little plug, and introduced into the opening; this plug is enlarged day by day, so as to destroy all callosities and sinuses. By this process, and with plenty of patience, he cured many a fistulæ. He died old and rich; and he made the people pay well; and in this he was right, as the public only esteem those things which cost them dear. All patients who dreaded cutting fell into his hands; and, as the number of cowards (*poltrons*) is always great, he never wanted for practice."

The ligature was the plan most in use; but Felix preferred the knife. Felix, therefore, was called upon to describe to the king the entire history of these different remedies. Caustic, he told him, produced continual pain for five or six weeks. The ligature required a long time to cut its way through, and also needed frequent tightening, and so constantly produced pain. The pain of incision was, he admitted, sharper, but then it was only for a moment; and the cure for incision was certain and rapid, and this could not be said of either the caustic or the ligature. Felix's arguments, supported by those of d'Aquin, Fagon, and Bessieres, decided the king for incision. Felix was a bold man; for at that time the operation by the knife was looked upon as a great and terrible affair. But Felix was not an ordinary man. He was the son of the king's surgeon, Felix de Tassy; had been carefully educated by his father, in hopes that he would become his successor; and at an early age was celebrated as a skillful surgeon. In 1676 he, in fact, became first surgeon of the king. But, while experiments of the "curers" were being tried, he read everything which had been written on the subject; and, what is more, operated on all the

patients having fistula *in ano* who were received into the Paris hospitals and into La Charite at Versailles. When, therefore, the king at length resolved upon the operation, Felix had become a master in its performance.

Felix used a modification of Galen's syringotome. It was a very narrow curved knife, terminated by a stylet several inches long. The cutting part of the blade was covered with a silver sheath. This instrument was introduced through the fistula into the rectum and then brought out the anus. The sheath was then gently withdrawn; and the knife, now laid bare, held by the hand and by its stylet end, was at once made to cut its way out. This knife received the name of the *Royal Bistoury*.

The operation was performed on November 18th, 1686. The king had kept his intention a secret. He came to Versailles on the 15th; and on the 17th he rode out publicaly on horseback. On the 18th, at five o'clock in the morning, the apothecaries administered a lavement. A little before seven, Louvois brought Madame de Maintenon to the king, who was found engaged with Pere de la Chaise, his confessor. In the Cabinet des Bassans were assembled Felix, d'Aquin, the king's chief physician, Fagon, Bessieres, the four royal apothecaries, and Laraye, Felix's pupil. At seven o'clock they entered the king's room. Louis XIV. made Felix show and explain to him the instrument, etc.; and then with perfect confidence, and most composedly, (as we are assured,) placed himself in Felix's hands. The operation was performed in the manner above indicated; and then, with eight cuts of scissors, Felix removed the callosities which were exposed when the inscision was made. Louis bore the operation without a cry or a word. A large plug of charpie, covered with oil and yolk of egg, was then forced into the wound.

Consternation seized all the courtiers when they heard that the king had undergone this *dangerous* operation. For the first few days afterwards, things went on well; but, on December 7th, it was found necessary to destroy the new cicatrix, and to lay bare the fistula to its base. After this second proceeding, the operation succeeded.

Felix was well rewarded. His fee was 50,000 crowns, and the estate of Mouhineaux, estimated at a like value. D'Aquin received 100,000 *livres;* Fagon, 80,000 *livres;* the four apothecaries, each 12,000 *livres;* and the pupil Laraye (who was not forgotten), 400 *pistoles*—the sum paid amounting altogether to about £40,000! Felix's practice now naturally became very large; for, as Dionis says:

"Fistula *in ano* has become a fashionable disease since the

operation was practiced on the king. Those who had before, through shame, concealed the disease, now made it public; and many went to Versailles to undergo the operation, because they knew that the king made inquiries about all operations of the kind. Some even, who had simply hæmorrhoids, or a slight discharge, were angry when they were told there was no necessity for an operation."

"Such," says M. Le Roi, "is the history of the operation performed on Louis XIV. Thanks to the happy initiative of Felix, the method of operating by incision was again brought into honour, and has since been generally adopted. A man, indeed, may now-a-days successfully practise the operation without being first surgeon of the king—so simple has the operation become."—*Brit. Med. Journ.*, Sept. 23, 1865.

PRACTICE OF MEDICINE AND PATHOLOGY.

Cholera—Is it Transmissible?

Every physician must feel the importance of this question, particularly at a time when the authorities of every port along our wide seaboard are called upon to take decided action in the matter of quarantine, and naturally look to our profession for advice. Unfortunately, it is a question concerning which opinions widely differ. The majority of physicians in New England, perhaps, believe that it is not contagious, but mostly, so far as we know, on evidence of a negative character. Dr. Snow, the Superintendent of Health in Providence, in a recent tract for the people, says that it would be a "work of supererogation" to attempt to prove that it is not contagious, and that no person of intelligence can believe otherwise. The evidence he offers is also wholly of a negative character. As may be supposed, he considers quarantine wholly unnecessary, and assumes that the medical faculty of Paris have the same faith. With no evidence of our own to offer, we shall again present to our readers the views of those who have had fresh opportunity of observation, and it will be seen how strong is the belief which prevails among those who are now witnesses of its ravages in its contagious nature. Indeed, not a dissenting voice is raised to such opinions as these which follow in the discussions at the medical societies, which fill the pages of foreign journals.

At the session of the Academie des Sciences, Nov. 6th, M. Velpeau read a paper of some length on the subject of the cure of cholera. He believes the disease is contagious, and states

"that all observations made upon the appearance of cholera in those places where it is not epidemic—for example, in Western Europe—seem to me to prove, almost to a certainty, that cholera is contagious."

The following extract is translated from the *Archives Generales* of November. It is a portion of a memoir presented to the Academie de Medecine by M. Jules Worms, Medecin en chef de l'hopital militaire du Gros-caillou.

"There is a special agent produced upon the banks of the Ganges, and under circumstances but little understood, which is poisonous to many persons.

"This agent manifests itself among persons living or traveling together, but always presents an uninterrupted chain.

"The cholera is a disease transmissible by men.

"This agent manifests its influence upon certain individuals of the human species (probably, also, upon certain kinds of animals,) by effects more or less grave.

"The proportion of persons who are affected by this agent can only be approximately estimated, and is always very small. The human organization may become a fertile soil for the multiplication of this agent, as soon as it shows its poisonous effects.

"The multiplication of this agent takes place particularly in the digestive canal.

"The alvine and gastric discharges of patients affected with cholera contain the effective agent in transmission.

"This efficacy does not coincide with the escape of the discharges. It is subsequent to them by several days.

"It appears to be destroyed after a space of from fifteen days to three weeks.

"The corpses of cholera patients emit the poisonous agent in a much higher degree than the sick.

"Persons affected only with cholerine emit with their dejections an agent capable of producing true cholera about them.

"The greater or less density of the sun's rays to which these dejections are exposed diminishes or favors the propagation of the disease.

"The circumstances which, besides the individual receptivity, the conditions of which are entirely unknown, favor the effectual reception of the toxical agent, are the gastro-intestinal affections, depressing affections of the nervous system, errors of diet, excesses, and all things which diminish the organic energy necessary for the elimination of the poisonous agent.

"Its energy is in proportion to its concentration, and this to the importance of the foci.

"The radius of effectual action of this agent is very limited.

Its diffusion in the atmosphere diminishes and annuls its effects.

"The practical indications which flow from these conclusions are as follows:

"The establishment of certain measures with regard to healthy persons and objects coming from infected places.

"The state of science ought to convince us that healthy persons and objects which have not been used by the sick are little adapted to bear the poisonous agent. This, to be efficacious, must be produced in quantity, (as this only happens among the sick, and is fixed upon objects which have received their dejections.)

"Very rigid measures with regard to sick persons arriving from an infected country, by isolating the sick and by the disinfection or destruction of their dejections, the disinfection of places occupied by them. The measures applied with care in other countries have produced unlooked-for results.

"Well-regulated sanitary inspection. An appeal to all the physicians of the country to announce to the authorities the first cases of the disease, and to apply to the first patients and their dejections the preceding rules.

"The necessity of not leaving in the houses, but of transporting to special places, the dead bodies.

"Isolation of the sick.

"Never to forget that even in a pronounced and extended epidemic the barriers opposed to the radiation of every case of cholera in particular, may prevent numerous misfortunes.

"To remember the facts which have been observed of the recrudescence of epidemics in the spring after being quieted by frost, and to take measures to escape the possible subsequent ravages."

The following extracts are translated from the memoir communicated by M. Grimaud to the Academie des Sciences, entitled "Etudes sur la Cholera faites a Marseille en Septembre et Octobre, 1865:"

"*Origin of the Epidemic.*—Sunday, June 11th, at half-past two, the Stella, Capt. Regnier, entered the port Napoleon. The ship had left Alexandria the first of June with 97 passengers, of whom 67 were Algerian pilgrims. She brought the first news of the existence of cholera at Alexandria. On the evening of the same day, June 11th, the Bizantine arrived with 55 passengers, having left Alexandria, June 3d, and touched at Malta. On the 15th, the Syria, with the English mail and 320 passengers, and on the 16th the Said, with 190 passengers.

"Between the 11th and 16th of June, then, 562 persons

arrived at Marseilles from Alexandria, where the epidemic was in the ascendant at the time of their departure. What has become of those 562 persons? They are scattered, but if one could call them by name, the tomb would reply for more than one of them.

"But I have been able to follow, step by step, from the time of their arrival at Fort St. Jean to their departure, the destiny of the 67 pilgrims. The ship left Alexandria the first of June, bearing 67 pilgrims from Mecca. Eight days after its departure, June 9th, there were thrown into the sea two of this number, and two days after this, on the 11th, the 65 remaining disembarked, of whom Ben Kaddour succumbed on landing.

"These pilgrims came from Mecca via Djeddah and Suez. From May 20th to June 22d, nearly 20,000, *all more or less infected*, passed Suez, according to the report of the chief physician at the Ismuth, in order to embark at Alexandria for Europe or elsewhere. Between May 20th and June 22d, several thousand of them encamped at Alexandria, near the canal of the Madmoudieh. * * * * * *

"The population of Suez, Alexandria, Marseilles, etc., were healthy, when some pilgrims from Mecca, embarked at Djeddah, came in contact with them, and the cholera, which was at Djeddah, declared itself among them. It was at Djeddah when the Marseilles pilgrims left there. Some of them died during the passage; we know three of them—the two who succumbed a couple of days before arriving at Marseilles, and the third who died on touching shore. The cholera travelled with them; they bore it.

"The Arabs left Fort Saint Jean to re-embark. A crowd of the curious of that populous quarter mixed itself with the pilgrims, surrounded them and assisted them in loading their baggage outside the Fort. It accompanied them along the bridge overlooking that old part of the city. Here it was that the first cases of cholera showed themselves. They were rare at first, and their character misunderstood or concealed. The physicians said, 'let us say nothing about it; it is not necessary to frighten the people.' But the cholera did not remain confined to the quarter where it first appeared; on the 22d of June a frightful case was reported by Dr. Forcade in rue de Rome. Thus it is that the cholera has for the sixth time been introduced and developed in Marseilles.

"*Facts of Contagion.*—I have said that the disease leaves its principle in baggage. I mention no doubtful facts. Here is one of many others:

"Near Sait-Jean-du-Desert, at Saint-Pierre, not far from Marseilles, in an isolated place, a peasant died of cholera; his

wife also died. He had not left the country, 'but,' says Dr. Dussiler, 'his wife was a laundress, and had received a bundle of linen belonging to an individual recently arrived from Egypt. It was the husband who opened the bundle and unfolded all the pieces.'

"Still another: The postal department of Marseilles numbers 120 persons, of whom 75 to 80 are clerks; 22 are employed at the bureau of departure and 9 at the bureau of arrival. There has not been a single death, or even a case of sickness at the former bureau, while of the latter nine employees eight have been sick and one has died. These eight have been taken sick one after the other; this has been proved of the first five. The one who opened the despatches from the East fell sick, was '*cholerise*,' was the expression used. Another was put in his place—the same effect, and so on up to the fifth.

"Now all is explained; there is no longer any mystery in the march of the pestilence. The cholera travels with men and with things. Where man and his effects do not travel, there the malady does not show itself. The 562 travelers of the Stella, Byzantine, Syria and Said, with their correspondence and effects, disembarked at Marseilles from the 11th to the 16th of June, are scattered in Europe, and wherever they have settled they have sown the seed of cholera. This seed has germinated wherever it has found a soil prepared for its reception, that is to say, constitutions predisposed by feebleness derived from previous illness, from intemperance, or from the non-observance of the laws of public and private hygiene."—*Boston Medical and Surgical Journal.*

MATERIA MEDICA AND THERAPEUTICS.

The Hypophosphites—Their Therapeutic Value.

Under this title, Dr. Ira D. Brown, of Albany, N. Y., contributes to the *Boston Medical and Surgical Journal*, (Dec. 21, 1865,) an interesting paper. After stating the proposition of Dr. Churchill, relative to the importance of phosphorus in the system, Dr. Brown relates a number of cases which exhibited the beneficial effects of the hypophosphites. Used in solution, (calc. hypophos., sod. hypophos. aa℥ij; aquae Oj. M. A tablespoonful to be taken thrice daily,) the effects consisted in an improvement of the digestion, and relief of those nervous dis-

orders which are the consequence of imperfect nutrition. The remedy should be continued for six weeks or two months. Great care should be observed in the selection of the drug, as many worthless imitations are put upon the market.

Few remedies have an *a priori* reputation so good as these preparations, and experience in their use will not disappoint expectations. The acknowledged importance of phosphorus as a constituent of the nervous tissue has rendered desirable an efficient means for its introduction into the system suffering for want of the element. The researches of the physiological chemist proposed the combination in question, simple, unirritating, easy of assimilation, and positively nutritive in quality. Their worth has been thoroughly tested, and may now be considered to be as completely established as that of cod liver oil or quinine. If their properties are accurately propounded, they will be used with intelligence; and, though affording no universal panacea for the ills to which flesh is heir, will prove to be an invaluable addition to the means of restoring nervous tissues.

MISCELLANEOUS.

A Remarkable Case of Double Monstrosity in an Adult.

The following is an account of a very remarkable monstrosity in an adult who has lately arrived in this country. He presented himself at our office, and we have requested Mr. Ernest Hart, of St. Mary's Hospital, to carefully examine the parts. He reports as follows:

Jean Battista dos Santos, native of Faro in Portugal, is nineteen years of age, about five feet seven inches in height, well nourished, and symmetrically formed, with the important exception of the singular monstrosity here to be described. He is bronzed in tint, of intelligent expression, and well featured. When dressed in ordinary costume, he has all the activity and general appearance of any other well grown lad, concealing with complete success the supernumerary appendages which he bears.

He possesses two complete and well-formed penes, placed side by side, and a large central third leg and foot. Each penis

is in itself complete in its general anatomical characters. They are placed laterally, each about an inch from the median line of the pubes. They are of more than average dimensions, each measuring 4¾ while pendant. The prepuce is retracted. The latter is 4¼ inches in circumference; the right somewhat smaller, 3⅞ inches. When the bladder acts, it expels its contents through both penes at the same moment. Under excitement, both become simultaneously erect; and other functions are performed by the two simultaneously. On the outer side of each is attached a fully-developed scrotum and testis. Between them hangs a shrunken scrotum, which contained two testes until he was ten years old, when, as he says, they ascended into the abdomen. He refuses to have bougies passed, so that it cannot be ascertained where the urethral passages communicate, and how they pass into the bladder, or whether this is normal in structure. He describes himself as possessing considerable virile power. It is difficult to say how the crura of the penes are attached internally, and on this subject it might be premature to hazard an opinion.

The third limb is of complex character, and presents some remarkable peculiarities. It exhibits marked evidences of the abortive effect at the production of twins, which is the key to the study of this singular monstrosity. At the first sight it seems to consist roughly of a large thigh, with an abortive leg, dislocated and bent up in front of it, and a misshapen foot, also dislocated.

Thus, to begin with the foot, it will be seen that it is really a coalescence of two feet, more or less perfect. The central toe is a consolidation of two great toes; on the right are the four toes of that foot, tolerably perfect; on the left are four toes, irregular in development, the second dwarfed to a tubercle, the third clubbed and bifid, the fourth and fifth tolerably regular. The tarsus and the metatarsus are fairly developed in double; and on each border may be seen the projecting parts of the fifth metatarsal bones. The projections at the junction of the foot with the leg, which might fairly be mistaken each for an astragalus, are, in fact, the double projecting ends of a bifid tibia. On examining the plantar aspect of the foot, a double heel is very clearly made out. It is remarkable that the terminal part of the foot is devoid of ordinary sensation; but he does not complain of its ever feeling cold or causing him pain. The foot is dislocated. The breadth of the foot at its terminal extremity is 7 in.; in the middle 6½ in.; its length on the dorsum 4 in.; its length on the sole 5 inches.

The leg is, as already stated, dislocated and fixed anteriorly on the thigh; while its extremities project over the dorsum of

the foot. The fibula could not be made out. The tibia is *bifurcated* at its lower extremity, and terminates in two prominate masses with distinct though rounded malleoli. The skin is all partially sensitive. The only movement which can be given to other parts of the limb is that of partial extention, soon checked both by its displacement and by the fold of skin which connects it with the anterior aspect of what represents the thigh. The length of the leg is 7½ in.; around the lower expanded and bifurcated end it measures 9 in.; at the part where the tibia bifurcates 5 inches.

The thigh, or what represents it, is fleshy and somewhat pyramidal in shape; seen from the front, and in its usual position, it looks much like an ordinary thigh centrally situated between the two legs, and running upwards and backwards. It is freely movable. On being more nearly examined, it is seen to be attached to a third bone. This articulates, by a joint having very free motion, to the arch of the pubes. Seen posteriorly, it is observed to terminate above and behind by a thick clubbed projecting extremity of which the greater part is free and projects backward. The skin over the upper free part of the back of the bone is marked by a deep depression or puckered cul-de-sac, upwards of an inch deep, of which the significance is open to various interpretations. The thigh measures 9 in. round below, and 17 in. above, at its thickest part. Here it is flattened from side to side; and there is a considerable mass of what is probably fat and muscular tissue. There is, however, no power of voluntary movement in this or in any part of the limb.

The bone by which the direct attachment to the pelvis is effected is very short—about three inches in length. Its existence may easily be overlooked, for in front the skin passes continuously upwards from the thigh over it without any fold or marking. Its presence or mode of attachment are determined by grasping the limb firmly by its perineal attachment, and moving the thigh upon this upper piece. There is so much skin, fat, and cellular tissue around this short bony piece, that it is difficult to determine its precisive shape; but it will be seen to be irregularly curved and concave backwards. At its pubic attachment it moves freely; below the limb moves on it by a hinge-joint. From the free movement at the pubic articulation, the limb can at will be twisted round and made to project posteriorly, so that it is not all seen in front, and does not project there.

What is the pathological significance of this bone? During life it would be difficult to decide with certainty. It is not

probably a pelvic bone, misshapen and centrally attached—the osteal congener of the true penis? On examining the perineum posteriorly it will be observed that there is a tendency in the skin running down over the central limb to assume the characters of a double perineum. The true anal aperture is deviated by about an inch from the median line; and the puckered culde-sac in the skin over the clubbed and enlarged upper posterior extremity of the thigh is suggestive of an abortive second anus. Then is this mass of bone only the upper end of a femur, with the trochanters excessively developed? or does it contain other abortive osteal elements?

There are suggestions which cannot probably be converted into certainties of one sort or the other during the life of the young man. On the other hand, he remembers to have been told that when he was a year old the third limb projected more stiffly than it does now, and a Portuguese chemist, officiating as surgeon, broke the limb at some part, so as to make it less cumbrous. He believes that it was at the juncture of the lower leg to the thigh that this was affected, and that the leg was then bent upward and forward in the position in which it now is. Examination renders this probable, since it is certainly dislocated into an unnatural position, and has only a false joint. But it is possible that at this time the neck of the thigh-bone was broken away from the body, and that the upper bone is that neck remaining attached to the arch of the pubes by a ball-and-socket joint, and making a false joint with the body of the bone.

However this may be, there is ample evidence from the examination of the whole limb to show that it is an abortive effort at a double extremity, which explains the presence of a double penis by the suggestion of an attempt at twins. So that this is, in fact, a case of a man having attached to him the lower limbs and penis of a partly-developed twin. What is particularly remarkable is the perfectly co-equal development of the two penes and testes, and their completely equal adaptation to the general functions of the individual organism of their bearer. It is true that the right penis is somewhat smaller in circumference than the left, but he states that they were originally of the same size. He habitually uses the left in sexual intercourse.

Of course it was a matter of interest to determine whether any family history of hereditariness or any tendency to twins could be detected. In reply to interrogation on these points he stated that his father and mother were both healthy and well-formed, and he believes that there was no example of malformation of their blood relatives. His father is alive. His

mother died from phthisis. He has four brothers and two sisters, all well formed and without any peculiarity of shape. His mother was not conscious of any fright during pregnancy, nor of any "maternal impression." None of his brothers or sisters are twins. He himself has always been healthy. He is very active, runs very swiftly, and is a good horseman. He usually disposes of his third limb by strapping it with webbing in the right leg of his drawers to the side and front of the right thigh. As he walks when dressed no external deformity is observable. —*London Lancet*, Jan., 1866.

Literary Men and Doctors.

It is pleasant to record the fact that nearly every literary man and woman with whom I have been acquainted, or whose lives I have looked into, has found a generous and disinterested friend in a doctor. I could, of my own knowledge, tell many anecdotes of the sacrifices made to mercy by members of the profession; of continuous labors without the thought of recompense; of anxious days and nights by sick and dying beds, without the remotest idea of "fees." I may tell one of a doctor, now himself gone home; it was related to me by Sir James Eyre, M. D. Unfortunately I have forgotten the name of the good physician, but there are, no doubt, many to whom the story will apply. Sir James called upon him one morning, when his career was but commencing, and saw his waiting-room thronged with patients. "Why," said he, "you must be getting on famously." "Well, I suppose I am," was the answer; "but let me tell this fact to *you*. This morning I have seen eight patients; six of them gave me nothing, the seventh gave me a guinea, which I have just given to the eighth." Such a Physician Providence sent to Thomas Hood.—*S. C. Hall's Biography of T. Hood.*

Aneurism of the Sciatic Artery Treated by Injections of Perchlorure de Fer.

M. Nelaton treated some time since an aneurism of the terminal portion of the sciatic artery, projecting from the buttock, by injections of the *perchlorure de fer*. The case was the most interesting as the patient had formerly had an aneurism in the same region, for which the artery had been tied above the tumor. After a single injection the pulsation had entirely disappeared, the tumor gradually diminished, no inflammation followed, and at the end of a month the patient was perfectly well. —*Gazette Medicale*, Montreal, from *Gaz. des Hopitaux.*

Human Deterioration.

There is a tendency perhaps in city life to diminish the size of the human form (increasing, however, the fineness of fibre and improving the *quality*), but there is no foundation for the very common belief that man has deteriorated from earlier age. The *Scottish Guardian* says: "It is a very common opinion that in the early ages of the world men in general possessed superior physical proportions, and were of a greater size than they are at present, and this notion of diminished stature and strength seems to have been just as prevalent in ancient times as at the present. Pliny observes of the human height, that 'the whole race of mankind is daily becoming smaller,'—an alarming prospect if it had been true. Homer more than once makes a very disparaging comparison between his own degenerated cotemporaries and the heroes of the Trojan war. But all the facts of the circumstances which can be brought forward on this subject tend to convince us that the human form has not degenerated, and that men of the present age are of the same stature as in the beginning of the world. In the first place, though we read both in sacred and profane history of giants, yet they were, at the time when they lived, esteemed as wonders, and far above the ordinary proportions of mankind. All the remains of the human body (as bones, and particularly the teeth) which have been found unchanged in the most ancient urns and burial-places, demonstrate this point clearly. The oldest coffin is in the great pyramid of Egypt, and M. Greaves observes that this sarcophagus hardly exceeds the size of ordinary coffins, being scarcely six feet and a half long. From looking also at the height of mummies which have been brought to this country, we must conclude that those who inhabited Egypt two or three thousand years ago were not superior in size to the present inhabitants of that country. Lastly, all the facts which we can collect from ancient works of art, from armor, as helmets and breastplates, or from buildings designed for the abode and accommodation of men, concur in strengthening the proof against the decay of nature. That man is not degenerated in stature in consequence of the effects of civilization is clear, because the inhabitants of savage countries, as the natives of America, Africa, Australia, or the South Sea Islands, do not exceed us in size."

Ventilation of Sewers.

M. Robinet, a French chemist, has devised a means of freeing the sewers from the effluvia which escape in the attempt to ventilate them. He proposes that the furnaces of factories shall

derive their supply of air from the sewers. The gases will be destroyed by combustion, fresh air from the atmosphere supplying their place. He calculates that if the combustion of only 70,000 tons of coal can thus be economized annually in Paris, or only a tenth part of what is burned there, the sewers will be supplied with about 140,000,000 cubic feet of fresh air—that is, more than seven times their contents—daily. He would apply the same principle to the ventilation of cesspools, etc. It has been partially in use already, on the small scale.—*Scientific Review.*

Trichinæ.

Prof. Virchow, in his *Essay on Trichinæ*, says, that the most careful cooking is required to destroy the trichinæ in fresh meat; that salt has a very destructive effect on the parasites; and that ten days salting will effectually destroy them. Hams, sausages, etc., should not be eaten fresh; but should be kept a long time before being used.—*Brit. Med. Journ.*, July 22, 1865.

Regeneration of Bone.

In a biographical sketch of Prof. J. R. Wood, of New York, Dr. Francis states that "Dr. Wood has reproduced almost every bone in the body by treating with profound respect the periosteum. His museum contains all the experiments on the human patient that were practiced on birds and quadrupeds by Duhamel and Flourens."

Lemon Juice for Cancer.

It is said, on the authority of a Dr. Brandini, that lemon juice, or a solution of citric acid, relieves the pain of a cancer, when applied to the sore as a lotion. The discovery was made accidentally, and the value of the application was confirmed by repeated experiments.

EDITORIAL.

VALEDICTORY.

With the present number we transfer the editorial and business management of the JOURNAL to other hands. That the past two years have been years of unusual difficulty for medical periodicals, is sufficiently indicated by the number that have been discontinued during this time; yet we have never had occasion for discouragement or complaint. In this period our subscription list has received a constant and healthful increase, while our patrons have met their pecuniary obligations so promptly and universally as to obviate every trouble of this nature. True, there are some exceptions to this praiseworthy conduct, but they are less numerous than we had reason to expect. The only embarrassment we have experienced has come from lack of time to give to the pages of the JOURNAL the labor that justice to our subscribers demanded; and year by year this difficulty is increased by the press of duties from which we cannot escape. This consideration has induced us to place the JOURNAL in charge of those who will give it all the attention it requires. In an editorial and business intercourse of a number of years with its readers, scarcely a circumstance has occurred of an unpleasant nature, which allows the mind to dwell with satisfaction upon this period of our labor. From our correspondence, we feel personally acquainted with many whom we have never met. We can only express our thanks to those who have aided us in our work, and favored our readers by scientific contributions to the pages of the JOURNAL, and to bespeak for those who assume our duties the same kindness and forbearance that we have received.

EX-EDITORS.

SALUTATORY.

In assuming the relation in which we now come before the readers of the JOURNAL, we involuntarily glance over the twenty-two volumes, which remain as evidence of the fidelity and successful efforts of those who have preceded us.

And as we follow through the names of those who have been so intimately identified for so many years with the interests of our profession in the Northwest, who have written and taught so faithfully, that their influence is felt and honored by thousands of our co-laborers in the practice of medicine, we cannot but feel some misgiving in attempting to carry forward the work which has now been transmitted to us.

We can only assure our friends that we will devote our best efforts to maintain the JOURNAL in the position it has so long occupied; but must earnestly ask such aid as the profession can give us.

There are probably not four complete files of the JOURNAL now in existence. Comparatively few physicians in this city or in the country are acquainted with its history. A few facts connected with its origin and growth, therefore, may not be uninteresting to many of our readers.

The first number was published in April, 1844, under the title of "The Illinois Medical and Surgical Journal," J. V. Z. Blaney, M. D., Professor of Chemistry in Rush Medical College. being editor. The JOURNAL was continued two years as a monthly, containing but sixteen pages.

In April, 1846, under the direction of Professors Blaney, Brainard, Herrick and Evans, the title was changed to "The Illinois and Indiana Medical and Surgical Journal." It contained ninety-six pages, and was issued for two years simultaneously, once in two months, at Chicago and Indianapolis.

In 1848 a "new series" was commenced as "The North-Western Medical and Surgical Journal," published in Chicago, and was continued as a bi-monthly of ninety-six pages for four years—under the charge, first of Professors Herrick and Evans, then of Prof. Herrick and Dr. E. G. Meek, and finally of Prof. Evans alone.

For the following five years the JOURNAL was published monthly, first under the direction of Professors Herrick and Johnson, subsequently of Professors Davis and Johnson, and finally of Prof. Davis.

At the end of volume fourteen, (1857,) we find the following statement in the editorial: "The present title was chosen,

when Chicago was really close to the Northwestern border of our magnificent Union; but at present it would be much more applicable to a journal published in Oregon or Washington territory. Hence, the January number will be issued under the title of "The Chicago Medical Journal."

Since 1858 the JOURNAL, under this title, has been edited, for different periods, by Drs. Davis, Byford, Brainard, Dyas, Powell, Miller and Ingals.

The editorials of these twenty-two volumes present no insignificant history of the development of our profession, not only in the Northwest, but throughout our whole country. They convince us that our medical journals are the medium through which most members of the profession usually become acquainted with the existence and reputed value of new publications in the different branches of medical science; that they record the most important facts connected with our social and educational interests, and with the growth of our colleges, hospitals and associations.

We are consequently not among those who think lightly of the good which is accomplished by the medical journals of this country. Like the results of all human labor, they are undoubtedly imperfect, and yet it would be difficult to imagine the position of the medical profession if they should all cease to exist.

It will be our aim, therefore, to secure for our readers original papers on important medical subjects; to present valuable selections from foreign journals, and from our large list of American medical periodicals; to obtain reports of interesting cases, observed in the hospitals, infirmaries and dispensaries of Chicago, and to call the attention of the profession to new and valuable works in the various departments of medical science.

While it will be our chief object to aid in promoting the best interests of the profession in the culture of true science, we shall also endeavor to publish such intelligence, not strictly scientific, as may be of particular interest to the practising physicians of the Northwest.

We shall be under obligations to those friends, either in the city or country, who will favor us with such original articles as may aid us in rendering the JOURNAL acceptable to our readers.

BOOK NOTICES.

The Practice of Medicine and Surgery Applied to the Diseases and Accidents Incident to Women. By W. H. BYFORD, A. M., M. D., author of "A Treatise on the Chronic Inflammations and Displacements of the Unimpregnated Uterus," and Prof. of Obstetrics and Diseases of Women and Children in the Chicago Medical College. Philadelphia: Lindsay & Blakiston. 1865.

The very favorable manner in which this work has been received by the medical press, must be regarded as highly flattering to the author. Prof. Byford has long been known as a teacher, and as a practitioner of much experience in the particular branch to which he has devoted the best energies of his life. This work has extended the reputation of its author far beyond the immediate sphere of his labors.

Woman, not only from her peculiar organization, but also from the habits, which society imposes upon her almost in spite of herself, is too often the victim of severe and almost lifelong suffering. To mitigate this suffering as far as possible, should be the earnest aim of every physician. This volume, we believe, is the latest work on diseases of women published, either in Europe or America. Its high order of merit commends it to the special notice of all practitioners.

Rhynoscopy and Laryngoscopy. By Dr. FRIEDERICH SEMELEDER, Physician in Ordinary to His Majesty the Emperor of Mexico, Member of the Royal Medical Society of Vienna, and of the Medical Society of the Pantheon in Paris, etc., etc. Translated from the German by EDWARD T. CASWELL, M. D. New York: William Wood & Co, 61 Walker st.

This is an elegant little volume which reflects credit upon author, translator and publisher. The two monographs which it contains present a valuable summary of the knowledge which has been obtained by the most patient observation with the rhynoscopic and laryngoscopic mirror. The difficulties which oppose investigation by these methods are fully set forth, and the positive results which are attainable are not presented in such a way as to dazzle and to mislead the student. The author

does not hesitate to confess that laryngoscopic pathology and surgery are as yet very incomplete; and in many instances, with the tranquility of a true philosopher, he awaits the further multiplication of observations before announcing any conclusion, or committing himself to any hasty generalization.

The examination by the aid of reflected light of cavities into which, before the days of Czermak, the eye could not penetrate, marks a long stop in advance towards that degree of accuracy in diagnosis which is the aim of every scientific observer. Nor can it be urged that the laryngoscope, like the opthalmoscope, too often assists only in diagnosis without aiding therapeutical effort. The cases recorded on the pages of this work afford a sufficient refutation of such an objection. Aside from the chance for pathological study which are thus discovered, it is no small thing to be able to investigate the condition of living mucous tissue in parts so far removed from ordinary observation. The demonstrations of the dissecting room cannot compare with the exhibitions which are thus made of organs and tissues through which the current of life is flowing. On physiological grounds alone, then, the mirror of Czermak every day introduces us to fields of study as interesting as that once afforded by the fistula of Alexis St. Martin.

We copy the following history from Dr. Semeleder's pages:

A lady (her age I did not ask), a governess, came to me last autumn to be examined and to ask my advice. She had suffered for five years from complete aphonia, which had been gradually developed. On a careful examination, I discovered three formations of various sizes. The largest of these was spherical and was seated in the vicinity of the left vocal chord; a second, smaller and club-shaped, projected from the anterior angle of the glottis, and lay with its free extremity upon the first; the third and smallest protruded from the anterior surface of the right arytenoid cartilage, at about the level of the vocal chord, and extended into the latter structure.*

I stated to her that I was inclined to operate; that I could not insure success, so far as the restoration of the voice was concerned; but that by the operation, even as regarded the voice, nothing was to be lost, since she was already voiceless, a

* For convenience of reference these will be designated respectively as Nos. 1, 2 and 3. (TR.)

circumstance sufficiently unfortunate for a governess. To my amazement, I must confess, there was no dyspnœa, not even an abnormal murmur to be heard on auscultation.

The formation had at first, from its pale, reddish-yellow color, from its dim lustre, and from its uneven raspberry-like surface, led me to regard it as an enchondromatous or a fibroid tumor, but as I studied it more carefully with reference to a future operation, I found by the aid of the sound that it had something of the consistency of flesh, and, finally, I concluded that it must be composed of areolar tissue. The largest of the tumors proceeded, as I have said, from the left side of the ventricle of the larynx, and covered the left vocal chord in such a manner that only a small portion of the chord could be seen; this fragment seemed to have a normal appearance. The anterior extremity of the left vocal chord was covered by the polyp No. 2. As the patient was so sensitive under the examination, I could not determine whether the polyp No. 1 lay free upon the left vocal chord, or whether it was intimately connected with it. When the glottis was closed all three of the polypi were shoved over each other. Thus much, however, I could observe: By the attempt to utter sounds, the polyp No. 1 was rolled up around its broad basis, so that it would then lie upon the right vocal chord, and would be wedged in between the ventricular and the vocal chords of both sides. The polypi Nos. 2 and 3 proved to be quite freely moveable, following the respiratory current; No. 2 particularly, with its free end glided down over No. 1, and was again thrown upwards by a forcible expiration.

The patient, aside from this local trouble, was apparently in perfect health, and there were no reasonable grounds for supposing a connexion between the local disease and any cachexia, or the pre-existence of any special disturbing cause.

On the first of November, 1863, I undertook the operation, after having forewarned the lady that she must have a large stock of patience, and must expect to undergo a second operation. The operation itself was undertaken after the same preliminaries as I have described in connexion with the first case, viz. the local applications of morphia and chloroform, the fixation of the patient's head by a trustworthy assistant, and of the tongue by the patient's own fingers, Wigtrich's globe apparatus on a petroleum lamp, the operating spectacles above mentioned, and the laryngeal mirror held loosely in the left hand. The efforts to produce anæsthesia were made at very short intervals for the space of two hours, but with very imperfect success; the epiglottis forceps could not be tolerated.

I removed, by means of the polyp forceps, properly adjusted,

the formations Nos. 2 and 3, *i. e.* the one seated at the anterior angle of the glottis, and the one upon the right arytenoid cartilage, leaving of the former only a very small stump; accomplishing it, to be sure, only after frequent attempts. The greater part of the polyp No. 2 was removed by a single fortunate seizure; the wedge-shaped growth was about 1½ centimetres in length, and was first separated from its attachment, as the forceps which had seized it had reached the edge of the epiglottis.

Only a small portion of the polyp No. 3 was drawn out; the rest fell down into the trachea and was lost. The bleeding and the pain were very slight; and there was scarcely any reaction. The polyp seemed to be quite hard. The patient was very much amazed that there was still no improvement in her voice, but I, for my part, could not be much surprised.

The microscopic examination of the portions removed, made by Dr. Schott, showed again newly developed areolar tissue, with large loops of vessels and epithelium.

On the 15th of November, 1863, I applied myself to the removal of the largest polyp No. 1, with the same preparations as before. I now knew that its consistency was quite compact, and was therefore convinced that the operation this time would prove very difficult; for it seemed probable beforehand that I should not be able to seize the polyp with the forceps on account of its remarkable size and rounded form. I determined, however, to make the attempt, and, if my suspicions proved correct, to divide the tumor with a knife, and finally remove it in fragments with the forceps. This soon became necessary. While the tumor, by a continued effort on the part of the patient to utter sound, was held firmly, I succeeded, after one or two attempts, in making, with the aid of the mirror, two cuts, using Leiter's knife, after having inserted a lancet blade. The edges of the cut bled but little, and they did not gape at all.

I then applied the forceps, and removed, piecemeal, the greater part of this polyp. On the larger of the removed pieces, the smooth surface of the cut could be distinctly seen. The bleeding was slight; altogether a couple of teaspoonfuls might have been raised, little by little, mingled with mucus. The operation proved very wearisome for all of us, having lasted, inclusive of the attempts to produce anæsthesia, almost four hours. Still the reaction was limited to a slight pain in the larynx, which lasted about three days. The microscopic examination showed the same results as before.

When I next examined the patient, of the large polyp there was only a remnant of about the breadth of the vocal chord,

with a projecting lobe on the posterior portion. On the anterior angle of the glottis, a small nodule had been reproduced. To the astonishment of both myself and the patient, the voice unfortunately was not in the slightest degree improved. I now began to fear that the stump of the large polyp might have been so attached to the left vocal chord, or grown out of it in such a manner, to the removal of the remnant without injury to the vocal chord would be quite impossible. So I contented myself with blowing into the larynx most assiduously pulverized alum, hoping to produce shrinking of the remnant of the polyp. But it was all in vain; the voice was not restored. In laughing as well as in quick inspiration, a short dull tone could be elicited, but that was all. Occasionally in speaking the sound was somewhat rougher, but the change was only very transient. I now sought to destroy the stump of the polyp by cauterization, and twice applied nitrate of silver in substance; eschars were formed on the spots touched, but the voice did not come back. For me it was a painful moment; the patient must be encouraged to hope on, and I, for one, had nearly given up all hope. In the meantime, on the 31st of December, 1863, and on the 2d of January, 1864, I removed from the anterior angle of the glottis the lobe on the posterior extremity of the stump of the large polyp, and also the small growth which had recently sprouted. Both of these operations were conducted without assistance, and without any preliminary preparation. The lobe was as large as a small pea. I could not say why the voice did not yet return.

Meanwhile it occurred to me that when the patient had been left to herself for a couple of days, the interior of the larynx, especially the right vocal chord, was found somewhat pallid, and also that the sound of the voice was somewhat better. Hence I supposed that the larynx, in consequence of the perpetual blowing of powder, the cauterizations, and the instrumental applications, must have been kept in a continual state of irritation, which of itself would at last affect injuriously the formation of the voice. I determined, therefore, to try non-interference with the larynx for a period of eight days, with the firm resolution at the end of that time, if no improvement had taken place, to resort to a combined operation with the knife and forceps. It was evident that this operation would now be much more difficult, as the stump was very narrow and flat, and hence that the line of my incision must be kept close to that of the ventricular chord, while at the same time I must avoid injuring it; and yet if I should succeed in all this, and still find the polyp firmly attached to the vocal chord, all my labor would be in vain, and

the voice would be lost forever. Although as an operator I had every ground to be satisfied with my experience thus far, yet, in the opinion of my patient and of the public, both I and my art would be objects of reproach if the voice was not restored. The last trump was, therefore, to be carefully played.

I therefore recommended my patient, who coincided with all my suggestions, to visit me again after the lapse of a few days, when we would come to a final conclusion. Now, I might as well confess that I was most agreeably surprised at the next visit, after an interval of several days, to hear my patient address me in a voice somewhat hollow and not metallic, but yet quite good and clear. The lady told me that for a year and a half she had not spoken so well as within the last two or three days, but that she was easily tired, and then her voice again became hoarse. An examination showed me that in consequence of the numerous and repeated applications, a superficial ulcer had been developed on the surface of the stump, for which I hope for a still further diminution of the remnant of the polyp. If the voice should not improve, and the patient should not be satisfied with its present condition, I shall be inclined to operate once more.

Dr. Caswell deserves the thanks of the profession for the neatness of his translation. It is seldom that he has permitted the intrusion of a phrase or even of a word to remind one that this is not an original English work. It is only the well ordered movement of the author's ideas that points to an art beyond that of the majority of our own medical writers.

Lectures on the Diseases of Infancy and Childhood. By CHARLES WEST, M. D., Fellow of the Royal College of Physicians; Physician to the Hospital for Sick Children. Fourth American from the Fifth Revised and Enlarged English Edition. Philadelphia: Henry C. Lea. 1866.

The great reputation of Dr. West in this country and Europe as a teacher, and as an elegant writer—the fact that his work on diseases of children has passed through so many editions in English and German, and that translations have been demanded in Dutch, French, Danish and Prussian, renders superfluous any extended notice of this, the fourth American edition. Every practising physician should make this work a careful study. We would especially commend the lecture on Diphtheria as a concise and yet faithful statement of the known facts regarding this dangerous disease. For sale by W. B. Keen & Co., Lake st.

Sixth and Seventh Annual Report of the Chicago Charitable Eye and Ear Infirmary, 16 East Pearson Street, presented by the Board of Surgeons, for the year ending May 1, 1864, and for the year ending May 1, 1865.

In accordance with the Constitution and By-Laws of the Association, the Surgeons would most respectfully report:

That during the year ending May 1st, 1864, four hundred and forty-four, and during the year ending May 1st, 1865, four hundred and fifty-eight patients have been under treatment,—making an aggregate of two thousand one hundred and twenty-six that have been treated since the opening of the Infirmary in 1858.

The following is a classified list of the diseases which have been treated during the past two years:

DISEASES OF THE EYE.

Wounds and Injuries	32	Diseases of the Retina and Optic Nerve	29
Conjunctivitis, catarrhal	57	Diseases of the Choroid and Sclerotic	14
" granular	123	Opacity of the Vitreous Humor	7
" " with vascular cornea	120	Glaucoma	1
Conjunctivitis neonatorum	8	Diseases of the Lens — Cataract and Injuries	31
" purulent	19	Diseases of the Muscles	18
" pustular	64	Abnormal Accommodation	5
Diseases of the Cornea	121	Unclassified	23
Foreign bodies on Cornea	11		
Diseases of the Lids	96	Total	818
" " Iris	25		
" " Lachrymal Apparatus	16		

DISEASES OF THE EAR.

Impacted Cerumen	9	Perforation of Membrani Tympani	4
Otorrhœa	35	Polypus	1
Inflammation of External Meatus	8	Unclassified	21
Inflammation of Membrana Tympani	11	Total	89

It will thus be seen that a larger number of patients have sought advice and treatment at the Infirmary during the past than any previous year. As a proof of the continued confidence with which its efforts are elsewhere regarded, it may be stated, that the expenses of patients from a distance have, not unfrequently, been borne by benevolent individuals in their respective communities. Physicians, also, in various parts of the Northwest have expressed warm interest in the welfare of this charity, and have frequently testified to the great good it has accomplished.

The benefit which many of these patients have received is incalculable. Parents, unfortunate and helpless, have been re-

stored to sight and the means of supporting their families. A large number of children have been rescued, it is believed, from partial or total blindness—and thus from life-long poverty. Many patients, affected with diseases, trifling in themselves, but which, if neglected, are almost certain to result in permanent injury of vision, have been relieved by short and simple treatment. And it is upon this class of patients, that the surgeons look with peculiar interest, as illustrating the manner in which this charity, if possible, accomplishes most good, by encouraging poor patients, without fear of expense, to *seek medical aid in the very commencement of their diseases, before they have assumed a dangerous form.*

There is scarcely any form of charity, whose claims can be so forcibly urged on the grounds of humanity and economy, as this. It relieves physical suffering and mental distress by the cure of painful diseases, and by removing fears of threatened blindness; it restores many with impaired vision to sight, and to their daily labors, thereby removing one cause of poverty; it prevents ignorance by rescuing poor children from partial or total loss of sight—thus enabling them to acquire the rudiments of knowledge, and to follow in after life honorable and remunerative occupations. How much more in accordance with an enlightened humanity is it to relieve such children, than to neglect them till they become dependent upon the Blind Asylum for their education and limited means of support.

On the ground of economy this charity claims *especial* consideration. So far as it prevents blindness—so far it lessens taxation by reducing the number of the poor dependent upon public or private charity—and so far it adds to the productive labor and wealth of the State. Its principle is Prevention, one of the first laws of Economy. It does not encourage the habit of idleness and begging, as, it is feared, is too often the case with direct pecuniary aid. It restores to health, hope and useful activity. It would be difficult to point to another form of charity by which so much good can be accomplished at so little cost.

The Surgeons are most happy to inform the Association and the public, that W. L. Newberry, Esq., President of the Board of Trustees, has generously donated the lease of a valuable lot of land for the term of ten years. A commodious building has already been placed upon this lot, and furnished for the use of the Infirmary.

The Surgeons take pleasure also in stating that the Infirmary was incorporated in February, 1865, by a special act of the General Assembly of the State of Illinois.

This charity is intended for the poor of the Northwest, as well as of Chicago. For such patients, treatment, medicines and lodging will be provided gratuitously. A charge is necessary at present for board, since the means of the Infirmary are insufficient to furnish this last without charge. Efforts will be made to establish a fund by which the poor may also obtain gratuitous board.

In entering upon this new era of its history, may not the Infirmary receive such aid and encouragement as its extending usefulness and increasing needs require.

TRUSTEES.

WALTER L. NEWBERRY, *President.*
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MR. J. G. RICHARDS, *Superintendent.*
MRS. RICHARDS, *Matron.*

We are requested to announce that the Surgical Clinics of Rush Medical College Dispensary will be conducted by Dr. Edwin Powell after the close of the lectures, and through the coming spring and summer. Cases from the country will be attended to on Saturdays.

DIED.—At his residence in Leslie, Michigan, after a protracted illness of typhoid fever, H. F. EATON, a student of Rush Medical College, in the twenty-fifth year of his age.

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ORIGINAL CONTRIBUTIONS.

Valedictory Address delivered to the Graduating Class of Rush Medical College, at the Twenty-third Annual Commencement, held on the Evening of Jan. 24th, 1866, at Smith & Nixon's Hall. By J. ADAMS ALLEN, M. D., LL. D., Prof. of Theory and Practice of Medicine, etc.

GENTLEMEN OF THE GRADUATING CLASS—In the absence of the distinguished President of the College, the courtesy of my colleagues has devolved upon me the pleasant duty—a duty sanctioned by time-honored custom—of welcoming you to the ranks of a noble profession, at the same moment we bid farewell to you in the capacity of students, for this day you doff the mantle of professional youth, to don the toga of professional manhood.

To one familiar with occasions like this, the thoughts which are necessarily awakened by its associations, will savor of the hackneyed and commonplace, and it is presumedly difficult to get above or below the level. It is difficult to say true things which are new, although it is surprisingly easy to say new things which are *not* true. But once more, before escaping completely from your present speaker, you must permit him to assume the *role* of Mentor, even though the parchments you have just received may be urged as a properly attested statute of limitations against the infliction.

You have just now been created "peers of the realm" of Rush

Medical College, after thorough readings of your several bills, and the Engrossing Clerk has carefully registered your names and seen them duly attested. We congratulate you on this promotion, and believe you will do honor to your election. Meanwhile, moderate your natural feelings of exultation at having thus successfully traversed the rough and rugged road of your pupilage to this brief resting place, by the reflection that, with your new honors and privileges, have come also new and inexorable demands for future effort. In these days nothing is respected, save for a fleeting moment, but that which proves itself respectable. "The dignity of our glorious profession" is a mouth-filling phrase which always elicits applause and hand-clapping at medical societies and conventions, and some men get notorious, if not famous, by rolling its syllables (as other men do sin) like sweet morsels, over and under their tongues. But this is a wicked world, "far gone from its original (Æsculapian) righteousness," and does not believe in glory of any sort, save as a political or otherwise marketable commodity.

By proper arrangement of affairs you can make your diploma a little deed to inestimable wealth; by improper consideration thereof, you would cheat whoever you might wish to sell it to, even though you got nothing but an Esau's mess of pottage. Your parchments are the challenge to all mankind that you have laid aside your original besetting sins of ignorance and prejudice, that you have practiced your muscles, your nerves, and especially your eyes and ears, and are now ready to quit yourselves like athletæ in the game of life. What you will *do* remains to be seen.

Your *Alma Mater* presents each of you with these parchment shields, and, like her of olden times, commands you to return from the battle of life with, or upon them—with them inscribed with noble histories of new triumphs over disease, and especially ignorance, the worst of all maladies. For whatever may be the common prejudice and notion with regard to the true physician's business; whatever building of Babel towers of nosology, each brick a squared and jointed disease; whatever concoctions of mysterious mixtures "warranted to cure" (or kill, as the case happens;) whatever gibes and sneers, because men

will die in spite of our glorious profession, the truth remains, that the true physician's business is to combat the ignorance, both involuntary and willful, which everywhere abounds. 'Be assured this generation will call upon you for a "sign" of your mission, else they will not believe you one of the prophets; neither will they give you profits in anywise. Woe unto you if you have no sign save yonder roll you grasp so contentedly.

Men have a peculiar faculty of permitting in themselves a weakness and littleness and meanness and ignorance which they quickly spy out and loudly reprobate in others. Though, as Carlyle says, quack and dupe are upper and under sides of the same coin, yet the reversed faces, by a curious moral strabismus concentrate a telling and judging glance upon any other counterfeit. He is simply a great fool, who in these days undertakes to dupe a very foolish public. The foolish public has a very foolish trick of being honest—to its own interests when it knows them. There is no use in wasting either lamentations or profanatics, as the manner of some is, over this popular folly of to-day, which will be chased to death and torn to pieces by the bigger popular folly of to-morrow. You may attack it by preambles and long-winded resolutions in solemn conventions; you may wax lugubrious over it in very *b*athetic orations; you may lash it with invectives and frightful adjectives in state papers or newspapers—but it will not "down." Some then have thought to tie it up in strings of red tape by legislative enactment, that no ill-mannered and worse tempered dogs shall bark at the heels of our Sir Oracles, and especially that these curs should not make free with the Æsculapian dinner. But Tray, Blanche and sweetheart—curs of high and low degree—from Indian to infinitesimal, still remain dear to the popular heart, and poodles and pups of all shades and configurations, are yet carried in hysterical arms, and fastened to the offal carts of medical scavengers.

Briefly—Physicians should be men, oaken and iron men, capable of being and doing, whatever fever thrills the public pulse, or enervates the public brain. Hot-house plants are very pretty in their way, but scarcely the thing for outdoor exposure. Alas for the fantasy that would throw around a stalwart graduate of

old Rush Medical College the brittle protection of legislative statutes, or bind up his strong limbs with the flimsy cords of Trades Union Societies. The most of you are now thinking of "openings for business," some place where you can carry out practically what you believe you have received scientifically. So far as this is concerned, one at least of your old professors advises you in this wise: Do as the petroleum men do—take the surface indications and then bore. Old Dr. Sam. Johnson said, "if you have got anything to do, sit down doggedly and do it." Don't whine, but work at it. This man will disappoint you, and the other man will fail you; don't depend upon anybody but the present graduate of Rush Medical College in good standing. "The rolling stone gathers no moss." There is no opening for either of you; you have got to erect your derrick, and *bore* for medical success. To look for an opening, and wait for an opening, is like him who waited for the water to run by, that he might pass over the river dry-shod. The surgeon in the last war, who broke up his old connections to go thither, and now that it is over, of course comes to Chicago as the place wherein to win new triumphs over fortune, success and disease, well understands this in the abstract. Several hundreds of them are, and have been trying it. The river will run by ultimately. God help him who waits. "Openings" are only to be found as prizes in a lottery; they are to made as one digs a well. It is *well* if you make it. Find the place that suits you, and then erect the Æsculapian derrick.

Business of whatever kind requires "pluck"—requires "nerve." It is all well enough to talk of "modest merit," and of the grand fact that "truth is mighty, and will prevail," but in these desperate times it is gospel truth that a candle set under a bushel is a solecism, an "anti-new dispensation," and an epitome of darkness. Practically, you must put your candle, rush-light, farthing or Drummond, upon a night stick, that it may be seen of all men, and especially of all women.

Somebody wrote a novel—which I have never read—entitled, "What will he do with it?" The answer to my mind is as clear as sun-light. He should do totally different from him who wrapped his talent in a napkin and hid it. He must nourish it

and cuddle it. He must increase it by all the powers which he hath or can obtain. Otherwise, he profiteth not, and is in danger of the outer darkness and bonds.

Success, my beloved, is not a thing of chance. Chances make the fool's paradise. The part of wisdom is to convert chances into certainties, and make fortune the slave of the wheel, and not its mistress.

Success is a word which men interpret differently, and perhaps it were well that we canvassed its meaning before passing on to higher themes. One man counts success the accumulation of dollars and mortgages and bonds. Another counts it secured when all men applaud the effort and sustain the claim for position and fame. But your present speaker has a different idea of this from either of these. With deepest reverence he turns to Holy Writ, and remembers that, in the mysterious designs of Providence, man was permitted to fall from Paradise even to secure something beyond happiness and material felicity,—something beyond unearned satisfaction of material wants—something beyond the exemption from pain and death. The grand allegory teaches that neither brow-sweat nor brain-sweat, neither pain nor death were penalty enough to dissuade man from securing the high felicity of knowledge. The primeval curse has become a perennial blessing.

"Growth is the attribute of all the mind's attributes." You may confine the body in poverty, in pain, in prisons, but you cannot control the human spirit. You may pile creeds and usages, forms and dogmas, and erect your columns of Hercules —may even place Heaven's angels with blazing swords everywhere opposing, yet the human mind shall transcend them all, and out from the impossible of our age shall the creative intellect build the possible, the every-day, the common-place of the next.

With God all things are possible, and as He has set no limit to the development of the human intellect, so, with profoundest reverence be it spoken, it becomes possible for him into whose nostrils He breathed the breath which brought to being a human soul, to overcome the apparently inevitable, and cause the dream of philosophy to welcome the work of the day laborer.

Success is the accomplishment of the highest truths which Revelation and knowledge teach you. Between these there is no incompatibility. The truths which Moses brought down from Sinai, and David celebrated in immortal psalm—which Christ promulgated from Palestine, and Paul sustained with unequaled and inimitable writings while martyrdom stood by his side—are none of them outside the sphere, or opposed, in the slightest degree, to the studies which I urge upon you. "I am a man," said the old Roman writer, "and nothing pertaining to humanity do I consider foreign to me." It is a foul aspiration, that we cast back with unmingled scorn, which claim that medical men are skeptical or prone to so-called materialism. None like them appreciate man and nature.

"This most excellent canopy, the air, this brave o'erhanging firmament, this majestic roof fitted with golden fire! What a piece of work is man! How noble in reason! how infinite in faculties—in form and moving how express and admirable—in action how like an angel—in apprehension how like a god—the beauty of the world, the paragon of animals!"

We delve deep in the mysterious organic structure, but the gross scalpel throws back from its polished surface the reflection —"There is a God who made all this." The unaided vision and the microscope alike bring up to the intelligent sense but one report: "The material form is but the visual expression of the grand artistic thought." The created form mirrors the Creator, and the glitter of new discovery is whelmed in the ocean of knowledge upon the sands of whose shores our footsteps leave but a passing imprint.

Primarily, the physician should know exactly how the human body is organized; he should understand Anatomy thoroughly. Though he speak with the tongue of angels, and understandeth not Anatomy, he is nothing. Next, he should know the science of the organs in action, or Physiology. Anatomy is of dead things—Physiology of the living. The physician who does not understand both of these—I do not care whether he has secured one or half a hundred of yonder parchments—he has no right to meddle with healths or lives. Pile diplomas and popular reputations,

heaven high upon him, and they only crush him deep beneath decent contempt.

Next he should understand Chemistry in all its range and minutiæ, the laws of all forces or imponderable agencies with the actions and reactions of all elements upon each other, and particularly upon the human body, thus including what we call *Materia Medica*, and rightly also *Medica Alimentora*, or Food. What right have you to meddle with forces or matter, unless you understand them? I will excuse here a liberal skepticism of old Witts' fables about sundry things, good for divers diseases, but I will not excuse, nor in any wise commend herein, dabbling with what you fancy remedies for diseases of which you know nothing, in bodies of which you know less.

With these things you must combine those mechanical excellences requisite in surgery, and that other fine and ("nameless forever here") each of which requires perfect acquaintance with the science before mentioned, together with the skill of the artist and the calm serenity of the mythic Fates.

The long list of so-called specialities are but parts and parcels of these. "Let each be fully persuaded in his own mind" that he has imbibed nutriment from the trunk and branches of the great tree of medical science, before he undertakes to flourish as one of its blossoms.

But the medical man, thoroughly as he may understand the curriculum of studies ordinarily traversed in medical colleges, by no means is yet prepared even for professional success. It is trite to the last degree of commonplace to say that you have really but just commenced your professional studies. We have scarcely more than suggested the elements and pointed out to you the paths of study. We have opened to you the doors of the Æsculapian temple, and given you a clue to its halls and apartments. It is not so labyrinthine as the structure which lodges the Minotaur of the old fable, nevertheless it will tax all your faculties to explore. We have given you some keys and charts. God speed you on!

I commend you, further, ample reading of the best works upon the Philosophy of the Human Mind. The fault of metaphysicians or psychologists is, that they are not physicians or physi-

ologists. The fault of physiologists is that they are not psychologists. Man is a wonderful admixture of matter and force, and he who would control either his body or spirit should understand the laws of both. Professionally I commend this idea, not only to you graduates, but to statesmen and divines. Miraculous, almost, seems he potency of the human spirit upon the body which it wears, and great is the sway of the form over the force which inhabits its atoms. The great law that "action and reaction are equal" nowhere finds more admirable illustration. The black blood of dyspepsia and glandular inaction infects the mind with melancholy, fantasies and disordered notions, which neither God nor men admire; whilst on the other hand the subtle spirit of life can control, either to its destruction or to its repair and health, the crude elements which build up the human frame. The diseases of the world, without any recurrence to a transcendental philosophy, are a reflex of the mental habitudes, and the great many influences which shape the character of the different ages of the world. The reciprocal influences of mind and matter we study as scholars with regard to the individuals, but are exceedingly liable to overlook in relation to the masses of mankind.

Yet it is safe to say, that these largely control the phases of disease, and must modify both diagnosis and treatment. It becomes, therefore, your duty to study these influences and ponder upon their results. Some one truly said: "The individual man is an enigma, the mass is a mathematical problem." Then only will there come an exact and generous medical science, when this truth is recognized—when the microscopic littleness of old diagnoses there shall be superadded those grand, general and comprehensive views which shall grasp in a Newtonian system the great productive agencies of diseases. Medical science stands upon the verge of glorious discoveries. Little by little it has been gathering the scattered links, and laboriously working out the subordinate problems. It has been passing through the fire of ridicule, and too often worn longer than tolerably bearable the Nessus' shirt of self-conceit. But more than a twilight is now breaking through the darkness and mists of the ages of long ago. As the astronomers have mapped out the

apparently trackless heavens, and measured the stars in their courses—as geographers have counted the acres of the continent and islands, and have made charts of the currents of the supposed incomprehensible oceans,—so shall we, ere long, pluck from diseases the heart of their mystery, and establish their laws, side by side in certainty, with those whose secrets have already been wrested from great Nature. But in order to accomplish this, we must continually remember that there is a mind as well as a body, and that it is but a half truth—almost worse than a falsehood—which divorces the two in study. I therefore recommend you to study men as men—to remember the patient in the subject, the healthy in the sick. Observe all influences, political, civil, moral, domestic, personal, which operate upon him. To do this advantageously, or with even approximate correctness, you must not only be intelligent, but "men of affairs"—thoroughly posted in up the literature and science of the times. You will thereby gain personal culture as well as professional advantage.

I even insist upon your reading the daily newspaper, not for its probably vicious political views, but because it is a chart and chronicle of the times. In the older days, knowledge was mainly confined to books, and the antique bibliomaniacs even now have a fashion of deriding the newspaper; but it is safe to say that at least a score of newspapers may easily be selected, in this country alone, which contain on the average better writing, rhetorically, and certainly vastly more valuable information in a single issue than can be found in most of the so-called classical volumes, which would, if now published for the first time, perish upon the booksellers' shelves.

A similar remark may be made with reference to many or most medical books as compared to the current journals. The books smell of the mouldy centuries—often effete or worse, but some of the journals—perhaps *rari nantes in gurgite avsto*—are alive with the spirit of the age. They have a vitality, a freshness and progressiveness about them, which should commend them both to your subscription and regular perusal. They will keep alive the fires now animating your professional youth, and prevent you from lapsing, as is, alas, too often the case,

into a slumberous beatitude of professional hybernation. Keep your wits about you, men; keep your eyes and ears open. Read daily and observe constantly; and don't say you have no time, the excuse of sluggards, tobacco smokers, billiard players, bar-room politicians, wayside gossips, and dog and gun fanciers. You have no time to do otherwise. The physician, of all men, must be clear-headed, well informed, capable of taking any position in society, or even in politics, but invariably declining the latter. Alas, how many good men I have seen spoiled by neglect of this last suggestion. Keep out of it as you value your profession, as you prize a good name.

There has somehow got into being the idea that the study of our profession is a hardening process; that in familiarity with its details and experiences is involved a loss of the finer feelings and delicate sentiments which ennoble and refine human nature. The scalpel and the miscrocope which disclose, whilst they do not explain the material mechanism, are believed to determine a callousness of perception which prevents admiration of its exquisite structure; and beyond this, that those experiences which bring daily, and almost hourly, before us the sad evidences of the frailty and ignorance of the race tend to provoke a contempt for human nature which represses the growth of the higher emotions which distinguish the humanitarian and philanthropist. And indeed, when we recognize the great fact that individual violations of the great and well known laws of nature, and that the pestilences and epidemics, at the very mention of which the popular pulse throbs heavily, and the hearts of all men fail them for fear, though sometimes springing from obscure causes, are nourished to ten fold, nay, a thousand fold more destructive energy by their own wilful and stubborn negligence and ignorance—there is a liability for the professional mind to turn with disgust from the seemingly hopeless task of detaching Ephraim from his idols. Let the cloud now hanging threateningly upon the Eastern horizon, and whose lurid shadows just begin to fall upon the people of this continent, fail to launch its thunderbolts upon us in the coming spring or summer time, and the municipal dogs will return to their political vomit, and physicians be, as of old time, despised as croaking Cassandras. Why, this great

city of Chicago, a little while since, in an ecstacy of fright over the threatened advent of cholera, and ready to do almost anything to prevent, as when

> "The devil was sick, the devil a monk would be;
> The devil got well, the devil a monk was he;"

has had in a few days of cold weather its gigantic twenty-five thousand dollar energies (that is about twelve and a half cents a head for its population) crystallized into some half a dozen dilapidated swill and ash wagons, drawn by half blind and wholly spavined horses. Meanwhile, the collections thereof are permitted to be dumped into some Healy Slough, or similar receptacle of all nastiness, to send out concentrated poisons with the first vernal showers and sun.

But so far from the profession being rendered callous and indifferent by these things, we assert that they only develope and cultivate in them a righteous wrath which the sun does not go down upon. And so all along the track of human ills, albeit the offspring of man's own wilful ignorance, obstinacy or stupidity, true medical philosophy scatters rays of benevolent light. Although tempted at times to adopt the theory of the "Vestiges of Creation," that men have progressively been developed from "monads and reptiles and chimpanzees, to their present form," and that some have had "arrest of development" on their passage through the typical forms, we still adhere to the higher doctrine that man was created as he should be; that for some great purpose he was permitted to fall from his high estate, and is now slowly, but surely clambering up again. It is somewhat difficult, we admit, always to entertain a generous confidence in the latter statement, but we nevertheless accept it as an inexorable fact in our philosophy and are comforted thereby. A man in any business or calling who neglects the ordinary elements of culture must expect to pay the penalty in stunted mental growth. The medical man who sinks his justly entitled liberal profession into the mere trade whereby he lives, and the art whereby he accumulates houses and lands, and Government bonds, will of course, become hard and cold, illiberal in heart and mind. But this is clearly not the fault of the art or science.

Bunyan depicts the old man with his muck rake, industriously forgetting to look up at the angels who holds out the celestial crown just above his head, and within his reach if he would look up for it. And we have thought now and then, that some medical men have in like manner lost glorious opportunities for enlargement of perception, refinement of sense and the crown of large and liberal reason, by forgetting the existence of other knowledge and arts whilst raking among the debris of forgotten lore, or burrowing, molelike, away from the sunlight of modern thought among the detritees and fossils of the effete ages.

The first requisite to a medical gentleman is that he should be capable of thinking—the next, that he should know how to think, and then that he thinks of things worth thinking of. The world knows but little of anatomy, but there are not wanting men of shrewd sense who know how to recognize *brains*. You may catch the ears of the groundlings and even the patronage, temporarily, of the mass by the assumption of a hypothetical professional wisdom hidden in sesquipedalian phrase and words of learned length and thundering sound—particularly if you have opportunity to air them before courts and juries, but there will not be wanting divers plain men who will detect the shallow imposture and pluck off all mere jackdaw feathers. No man, as Bacon said, can truly understand science until he rises to the level of all sciences, and strikingly is this true of the medical man. His faults of primary education must be corrected by mature observation and study; his professional acquirements must of course be accurate and extensive; but beyond this, he must familiarize himself with *belles lettres* and the records of thought and action.

Cultivate personal character and surround your every day life with the atmosphere of literature and high art. I commend even poetry and music and the charming relaxation of social concourse with the intelligent and accomplished in any of the higher spheres of life. The physician in a sick room should be a gentleman; that is the soul of the code of ethics. Out of the sick room he must be nothing less. The cold-blooded boor has no business to be a physician, though he has anatomy and all the medical "ologies" at his tongue and finger's end. He

only plays on the "harp of a thousand strings" as though it were a threshing machine or a Chinese gong. I pray you avoid this, in daylight and darkness. On the other hand, remember that no true gentleman ever suffers himself to degenerate into a dandy or a dancing master, or puts on owlish airs of a dignity to which he is not entitled. What sometimes passes for dignity is pretty often stupidity in a transparent mask.

Gentlemen, the session of Rush Medical College which this day closes, has been, as you are aware, unmarked by any prominent incident; neither severe sickness nor death has been among you and harmony has everywhere prevailed. The course of instruction from the first lecture to the closing, has moved on as steadily and regularly as the course of a river to the sea, with broad and deep channels and nothing to oppose. Your zeal and assiduity, your constant courtesy and attention to the lectures, and finally your evident mastery of the topics upon which you have severally been examined, give the Faculty and Trustees peculiar pleasure in awarding to you the honors in their power to bestow. From many of you we shall expect to hear high things—from all of you, good things. As we have no doubt of your ability, we cherish no misgivings as to your success. You will gain respect for yourselves, and your *alma mater* will share each laurel.

We miss from our own number one familiar face, and you participate with us in the regret that even his powerful frame is not wholly proof against disease. For nearly a quarter of a century has Prof. Brainard not only occupied, but *filled*, the position of a professor of Surgery in this College. How he has filled it, not only the alumni of this College, but all educated surgeons, not only of this country but of all Christendom, can bear testimony. Originally endowed with a masterly intellect, quick perceptions, great industry and an iron energy of will and purpose, he has already placed his name high upon the roll of those names which the profession "will not willingly let die."

His rare faculties of invention and genius in adaptation have added largely to the resources of surgery everywhere, whilst his unequalled powers as a teacher in his department, have done really more for the preservation of life and limb during the re-

cent war alone, than would suffice to make a dozen reputations for the gazette or official bulletin. It is not claiming too much for him to say that he is not outranked by any living surgeon.

We cheerfully yield him the few months demanded for the restoration of his impaired health, and we look forward with great pleasure to the time when he will return from his European tour, prepared, not only to resume his position in the college, but again to give the profession the benefit of his large attainments and solid counsel. His absence must excuse these few words of eulogium, from one who knows well whereof he speaks, and that the daintiest sense of propriety cannot be offended by the tribute.

GENTLEMEN—The months of our association have gone rapidly into the past, and the moments of this, our last formal meeting, are slipping away from us, but we are assured that you will look back upon them with every renewing pleasure, even though gladly you go forth to the duties of a more active life. We commit to you the making of your own reputations, the honor of the profession, and beyond all, the care of lives and healths. Duties and responsibilities are not to be put on or off at your pleasure, like hats and coats, but must be worn forever. We send you to the fore front of the conflict with disease and ignorance. We know you will not skulk when cholera or other pestilence comes; and we believe that in the more constant and sterner battle with ignorance you will prove no cowards. For these life struggles we bid you *Farewell.*

Clinical Lectures on Diseases of the Eye. By E. L. HOLMES, M. D., Lecturer on Diseases of the Eye and Ear in Rush Medical College, and Surgeon to the Chicago Charitable Eye and Ear Infirmary.

MYOPIA—SHORTSIGHTEDNESS.

GENTLEMEN,—The condition of the eye in those cases, in which distant objects can only be distinctly seen with the aid of concave lenses, has not till comparatively recently been fully analyzed and comprehended. The term myopia has generally

been applied to *all* these cases, which, however, are now in strict diagnosis separated into two clearly distinct classes. Unfortunately the words, which might distinguish these two classes, are synonymous in our language, and cannot be well applied to them. Further explanation will show you the difference in the classes to which the English terms, apparently without distinction, have been given. These are shortsightedness, or Brachymetropia, and nearsightedness, or Plesiopia.

As there is an infinite variety of cases in each class as regards *degree*, and as there is a point in a series of cases from the two classes, where a difference could scarcely be detected, it should be borne in mind, that I shall only speak of typical cases, such as I have occasionally shown you, although we have not fully examined their peculiarities.

In the first class of cases, there is an abnormal formation of the globe itself, the antero-posterior diameter of the eye being too long. This elongation of the eye may be dependent upon a congenital tendency to its development, or may be acquired. It is worthy of notice that in infancy, the crystalline lens possesses a form so nearly spherical, and is placed so near the cornea, that the eye is myopic. As the infant develops, the lens becomes less convex and recedes from the cornea, and the eye in normal cases is able by the power of adjustment to see distant as well as near objects.

Sometimes, however, the eye does not develop normally, but in such a way that the antero-posterior diameter tends to increase more rapidly than the other diameter, consequently the retina is at so great a distance behind the lens, that the eye becomes permanently myopic. The greatest relaxation possible of the apparatus of adjustment cannot sufficiently diminish the convexity of the lens, to enable rays of light from distant objects to come to a focus upon the retina. The focus for distant objects in such a condition of the eye, is *in front* of the retina, near objects alone by the greater divergency of their rays can form distant images on the retina. The inability to see distant objects is sometimes further increased by too great convexity of the crystalline lens.

Myopia may be so slight in degree that the patient is scarcely

aware of any defect, or it may be so great that ordinary print can only be seen at the distance of two inches, or even of an inch and a half; such patients scarcely see sufficiently well to guide themselves safely in the street.

The causes of this elongation of the globe are obscure; they do not appear to depend upon any recognized diathesis; it is said to be often hereditary and dependent upon abnormal fœtal development; it is liable to increase with age, especially where it is already quite excessive in childhood. The presence of a slight elongation cannot be observed by simple inspection. In marked cases it can be readily seen by the projection of the anterior half of the globe, especially when the eye is rotated. The cornea, except in marked cases, retains its normal convexity, the apparent change in its form being caused by the great distance between the iris and cornea.

The ophthalmoscope reveals in a large number of these cases a peculiar yellow appearance in the form of a cone around the temporal side of the papilla of the optic nerve. This cone is well represented in the plates before you, and was seen by a few of you in the case of the young lady, recently examined with the ophthalmoscope. This peculiar conical figure is produced by an attenuation of the choroid, near the optic papilla. As the sclerotic is also attenuated and consequently weakened, it fails to give sufficient support for the normal pressure outward of the intraocular fluids; hence, we have a projection posteriorly called staphyloma posticum.

At one time this condition was supposed to depend upon inflammation. As none of the ordinary symptoms of inflammation during life, or its products after death are observed, and as the retina usually retains its delicacy of perception, this opinion is now generally abandoned. It is undoubtedly, as has already been said, due to abnormal development sometimes noticed at the time of birth, and liable to increase during youth, and sometimes even later in life. Some have believed that it was produced by undue use of the eye upon near objects. The fact that it is often congenital, and that it is found as often among the classes of people whose occupation does not require the use of the eyes upon near objects, as among those

who do thus employ their sight, shows that such an opinion is incorrect.

Vision is generally within certain limits remarkably good in ordinary cases of myopia. The eyes can be used for a longer time upon minute objects, and with less light than the normal eye; the internal recti muscles from constant use in very many cases become more developed, and are able to retain the visual axes of the eyes convergent more easily than those of the normal eye. Although in many instances, shortsightedness may be arrested in its progress, it not unfrequently increases in degree. As the globe elongates, the choroid and retina, finally present symptoms of congestion and inflammation, of which amaurosis may be the result.

Shortsightedness is sometimes *acquired*, although not so frequently as was formerly supposed. Since so many persons, engravers and jewelers for instance, constantly employ their sight upon near and fine objects, without acquiring shortsightedness, it may be supposed that in cases where it is acquired, there is a peculiar predisposition to it.

Certain forms of choroidal inflammation, general congestion of the eyes from their excessive use on minute objects with insufficient light, increase in the degree of convexity of the cornea from disease, all may tend to increase the length of the anterio-posterior diameter of the globe, thus rendering the eye myopic.

It is a popular opinion that individuals, who are shortsighted in youth, usually have normal vision in old age. This opinion is erroneous, as regards the great majority of patients with elongation of the globe. We shall soon see in what class of cases age tends to render the eyes less "nearsighted."

We have thus seen that shortsightedness—Brachymetropia—is a malformation of the eye—a disease, which is liable to progress and end in more or less discomfort, and even amaurosis. The apparatus of accommodation may remain unimpaired, the increased distance of the retina from the cornea counteracting the utmost efforts of this apparatus to reduce the convexity of the lens to such a degree, that rays of light from distant objects (parallel or nearly parallel rays) can be brought to a focus so far behind the lens.

Nearsightedness, or Plesiopia, is that condition of the eye, in which the form is normal as regards its diameter, but in which there is simply a reduction of the power of accommodation for distant objects. While the contraction of the ciliary muscle so increases the degree of convexity, that the eye is accommodated for near objects, not nearer, however, than five inches, the relaxation of the ciliary muscle, and the consequent tension of the Zonula of Zinn, cannot flatten the crystalline lens to such an extent, that rays from distant objects can form a focus on the retina. This condition of the eye is often produced in childhood and youth, when from the delicacy of the structure of the lens, the constant use of the eyes upon near objects, retains the lens habitually in so great a degree of convexity, that, as its substance becomes firmer with the increase of age, it remains in a more convex form, and the adjusting apparatus cannot produce flattening of the lens to its normal extent.

It is in this form of myopia, that the eye becomes with advanced age normal as regards seeing distant objects, or even *farsighted*—and for the reason, that advanced age is usually attended with absorption of the fluid portions of the lens, producing a flattening of this organ. Hence in cases, where in youth there may be too great convexity in advanced age, the absorption of the fluids of the lens may give a degree of flattening, adapted to vision of distant objects.

The treatment in ordinary cases of both these forms of myopia is simple, and is almost wholly confined to the use of concave lenses and suitable use of the eyes with proper exercise in looking at distant objects.

Where there is a tendency to any increase of myopia—Brachymetropia—great care should be observed on the part of the patient in the use of the eyes, and of the physician in the examination of the case and in the treatment. All such patients, especially children, should be taught not to bring objects too near the eyes, and to avoid bending the head forward in reading or writing. They should do nothing which tends to produce congestion of the globe. Consequently, long continued efforts on the part of the internal recti and ciliary muscles, as in reading fine print, should be avoided. Strict attention to the

condition of the abdominal organs should be observed, in order to prevent secondary congestions of the head. Of course, great care should be taken in regard to the selection of an occupation.

A few words only are here necessary regarding the use of concave lenses. As you all know, these lenses render rays of light radiating from objects more divergent, the degree of increase of divergency depending upon the degree of concavity of the lens. The increase in the degree of divergency with which the rays fall upon the convex surface of the cornea, causes them to come to a focus further behind the lens.

Although it requires very delicate and expensive optical instruments to measure the exact distance of objects from the cornea, for which the eye can be adjusted, and consequently to calculate the precise degree of concavity required in a lens suited to each case of myopia, for all practical purposes in nearly all cases, the following rule is sufficiently accurate:

If from the greatest distance, at which the patient can distinctly read quite fine print measured in inches, one half an inch, (the distance from the cornea at which lenses are usually worn) be subtracted, the remaining number will give the focal distance of the required lens.

A UNIQUE CASE IN OBSTETRICS.

Firm Attachment of Fœtal Head to Uterine Parietes. By E. Howard Irwin, M. D.

On Sunday night, Oct. 2d, 1864, I was called to see Mrs. B——, a robust woman, aged 44, in labor with her fourth child. The case appeared quite natural, pains regular, and at about ten minutes interval. Upon examination per vaginam, the os uteri was found sufficiently dilated to admit the point of the finger, and the head could be detected at the superior strait by its volume and firmness. After watching her labor for about nine hours, I found though the pains had grown quite frequent

and severe, that she had made but little progress, as the dilatation was but slightly increased. Attributing this state of things to rigidity of the os uteri, I placed her upon her feet, and bled her to approaching syncope. The relaxation not being as great as desired, she was put upon nauseating doses of tartar emetic, continued for about six hours, when the os uteri was dilated to about the diameter of a half dollar.

About fifteen hours had passed since my arrival, the labor had been quite severe, the membranes had ruptured, though *no waters* escaped, and an accurate examination had revealed that the anterior fontanelle was behind the symphysis pubis, and the posterior in front of the sacrum. In passing the finger within the circle of the os uteri, intending to increase its dilatation, I found that a portion of its circumference was soft cushion-like and quite dilatable, but that the finger was arrested in its progress around the head, at a point at the brim of the pelvis, a little to the left of the symphysis pubis, and could not there be passed between the child's head and the womb. The membranes could not be distinguished as an intervening structure, and it seemed as though the scalp, membranes and womb were united into a common structure, and that the left lateral surface of the os uteri was involved in the union. Under these circumstances, I called W. S. Schermerhorn, M. D., a skilful and experienced physician, who has practised by my side for the past ten years. After consultation, we concluded to continue the means to produce greater relaxation, hoping that in time nature would overcome the difficulties, so that the os uteri would become fully dilated, when if nothing but the irregularity of the head presentation remained, we would turn the forehead to one of the acetabula, that delivery might be accomplished by the natural powers.

The pains continued good for a few hours, but gradually lessened in frequency and force, so that we concluded to revive with ergot. She was accordingly put under its influence, and for a considerable length of time, the pains were of the most urgent character. Notwithstanding these powerful contractions, there was but little alteration in the condition of the os uteri, the dilatability was probably somewhat increased, but the actual

dilatation was but slightly improved. The gradually lessening pains, within a short time had almost entirely ceased, and symptoms of exhaustion had appeared, indicated by great jactitation, wandering delirium, and an exceedingly rapid pulse. We feared that delivery had been procrastinated too long, and that death would shortly come to her relief. Restoratives were administered, and she was allowed a little rest, and comforted with the assurance, that as soon as sufficiently revived, we would deliver her instrumentally.

It was evident that immediate delivery must be secured to rescue the woman from impending death, and as the forceps was not adapted to the case, both from insufficient dilatation, and uncertainty as to exact nature and extent of the difficulties, delivery was undertaken by craniotomy, as the only means in our opinion that would save the life of the mother.

After allowing the woman a little rest, a most accurate examination was made, the os uteri was dilated about the diameter of an inch and a half, the vertex had sunk a little lower in the pubis, but the original difficulty still existed. The woman being conveniently placed, I perforated the head with the craniotomy scissors, making two incisions at right angles, each about an inch and a half in length, the brain was then freely broken up and was evacuated rapidly. I then introduced a pair of curved craniotomy forceps, and succeeded in getting a firm hold of the head. Dr. S. introduced the index fingers into the vagina to protect the structures of the mother from injury in the delivery of any sharp pieces of skull, and found, that when traction was made, the head descended somewhat, but that the womb descended also. It was then ascertained that the scalp of the child was so firmly attached to the womb of the mother, that it would require a considerable amount of well directed force to separate them. The tractions were continued, while Dr. S. separated the adhesions by a compound movement with the fingers, keeping the attached portion of the neck of the womb stationary during the process, and at the same time forced the head toward hollow of the sacrum. After about three hours increasing efforts the attachments were separated, the mouth of the womb then became fully dilated, and the head was delivered, the greater por-

tion of the occipital bone having been received piecemeal. I now turned the face toward one of the groins, and brought the shoulders into the long diameter of the outlet; we now aroused the woman from the same unconscious condition in which she had lain during the operation, and solicited her efforts to bear down, but she was too feeble to render much assistance, and I delivered the child *very slowly*, giving the uterus time to contract as its cavity was emptied. Frictions over the uterine tumor were applied, stimulants and ergot given, from which we secured considerable contractions, and the placenta was delivered within an hour.

The adhesions were found to embracc that portion of uterus, lying internal to the descending ramus of the left os pubis, and involved the region of the right temporal ridge of the child's scalp. The internal surface of the neck of the womb was red and dry, and one or two ulcerated surfaces were exposed, a paste-like looking substance appeared to be the connecting medium, which was applied so closely to the hair and scalp, that it required to be literally peeled from the uterus, leaving the connecting medium, (which I suppose was the membranes,) attached to the scalp. I watched the patient very closely for about a week. She was well nursed, and, notwithstanding there was *no secretion of milk*, recovered without any untoward occurrence, except a copious crop of boils upon the external genitals.

LODI, WIS., January, 1866.

SELECTED ARTICLES.

SURGERY.

Two Tumors removed from the Larynx in a Case of Aphonia of Six Years, followed by immediate Speech. Dr. GIBB.

The patient was a single lady, of thirty-eight, who had had a bad throat for six years, the voice being reduced to a croupy whisper. During the first three years she had coughed up pieces of "flesh," one of which was an inch long and the shape of a shrimp. For the greater part of the time she could not

lie down at night, from supposed cardiac disease with dyspnœa, and her complexion was very florid. On examination with the laryngoscope in April last, a long, fleshy, somewhat bulbous growth was seen to occupy the greater part of the sub-glottic space, springing from the anterior part of the larynx, below the origin of the true vocal cords, and quite immovable. The larynx in other respects was comparatively healthy, but there was much irritability and spasm of its proper muscles. After six weeks' preparation, Dr. Gibb snared a growth in the loop of wire of his laryngeal ecraseur, cut its pedicle, and withdrew it firmly held by a piece of uncut mucous membrane in the retracted loop, in a similar manner to the outer coat of the artery after ligature. He now found a second and larger growth, which had formed the bed of that already removed, and this was snared six days later in a similar manner to the first, the tumor being likewise withdrawn in the retracted wire loop of the ecraseur. The voice was immediately restored, for the mechanical obstruction was got rid of. In a few days the little wound cicatrized, no obstruction was visible, the trachea was normal, and the patient left for the North cured. The composition of the tumors was wholly epithelial cells, and to the naked eye resembled a congeries of small cysts; they were of the size of small beans. The tumors were exhibited with the wires attached to the mucous membrane, and Dr. Gibb remarked that when the loop of the wire was not violently or spasmodically drawn home, the growths invariably were withdrawn with the instrument itself. The case made, he believed, his fifteenth or sixteenth in which he had now successfully abstracted growths from the larynx by means of wire loops, and this in their entirety, not in fragments. The shape and position of the tumors in the present instance were well illustrated by a large diagram. —*Medical Circular.*

OBSTETRICS.

On the Propriety of Inducing Premature Delivery. By T. G. Thomas, M. D., Professor of Obstetrics and the Diseases of Women and Children, in the College of Physicians and Surgeons, New York.

[Read before the N. Y. Obstetric Society.]

On the 1st of June, 1865, Mrs. B., a short but well made woman, aged thirty-three, applied to me to take charge of her delivery, which was anticipated about the 5th of September, giving me the following history. She had been delivered ten

months before of a still-born child at the seventh month, labor being ushered in by a violent convulsion which destroyed the life of the child, and left the mother in so precarious a condition that her life for several days was despaired of. During her illness she was attended by an intelligent practitioner of Saratoga, and Dr. Willard Parker, of New York, in consultation. After recovery from this confinement, she was amaurotic for three months, and was during that time supposed to be suffering from Bright's Disease. Becoming again pregnant, she naturally dreaded a recurrence of convulsions, and fears of a fatal issue for herself and offspring filled her mind with anxious forebodings—more especially as one of her sisters, an unmarried lady, had since that time died of Bright's Disease.

Upon taking charge of the case, I made a careful chemical and microscopical examination of the urine, and found it free from evidences of disease. These examinations were repeated weekly with the same result; and as I left the city on the 1st of July, to be absent a month, I left my patient under the care of Dr. Charles A. Budd, who watched the secretion as I had done, and reported her doing well on the 1st of August. On the 12th of that month, I was called hastily to Mrs. B., and found her laboring under some dyspnœa, considerable confusion of intellect, dizziness of head and nausea. Œdema of the feet, hands and neck was discovered, and upon examining the urine, which was scanty and high colored, I found it loaded with albumen. After this I saw her daily, and adopted those measures most relied on in such cases as preventive of the threatening climax. From day to day the symptoms above recorded steadily increased, the œdema of the neck becoming so marked as to be oppressive, and great depression of spirits superadding itself to the array of morbid signs. On the 16th, Dr. Thebaud saw her with me in consultation, agreed with me in the propriety of inducing premature delivery for prevention of convulsions, which, from the peculiarly marked features of the case, we regarded as more than probable; and in accordance with the result of the consultation, I proceeded to accomplish it on the 17th.

On this date, at 1 P. M., I introduced into the cervix a large sponge tent, but finding it impossible to retain it in position I removed it and used the smallest of Barnes' dilators. After twenty-five minutes I had dilated the os to the size of a circle whose diameter is two inches. I now left her, and returned to her at 4 P. M. No labor pains having been excited, I introduced the largest dilator, and after dilating to its utmost capacity, introduced a No. 10 gum elastic catheter

between the membranes and uterine wall, and left it. At 7 P. M., I was sent for in haste, violent expulsive pains being established. Upon my arrival the desired process was found fully inaugurated; the lady, as a further preventive means, was put under chloroform, and at 11½ P. M. a female child was born.

Mother and child did well, no untoward symptom showing itself in the case of either.

My object in relating this case is to call out the views of members of the Society upon a point which I consider one of the most important and momentous in the whole field of obstetric practice; and before closing I desire to give, as concisely as I may, the reasons which actuated me in interfering in the case which I have brought to your notice.

First, let me state that I am fully aware of the fact, so patent to all, that a large proportion of women affected by puerperal albuminuria pass through labor without untoward symptoms, and rapidly recover after its accomplishment, and that I feel that I would be recording a mischievous and dangerous precedent did I by this history lead any one to interfere in the progress of utero-gestation merely on account of the development of this condition.

Albuminuria in the pregnant woman, then, let me premise, is insufficient as a ground on which to base premature delivery. In the case under consideration I was influenced and decided in my course by the following considerations:

1st. The patient's previous delivery and narrow escape from death from this very cause.

2d. The fact that even in the first month of her existing pregnancy she had given evidences of Bright's Disease.

3d. The sudden appearance of grave cerebral symptoms coincidently with marked, even excessive amount of albumen in the urine, and, what I omitted to mention, tube casts filled with granular epithelium.

Believing now, (after having carefully reflected upon the case,) as I then did, that I was saving my two patients from a great danger by incurring a comparatively slight one, I should again, if similarly circumstanced, act as I did.—*New York Medical Journal.*

MATERIA MEDICA.

Nux Vomica. Gleanings from various authors.

The Powder.—The dose of powdered nux vomica usually prescribed is from three to five grains.

The Extract.—Of the alcoholic extract, the dose is half a grain.

The Tincture.—Until recently there has been but one tincture of nux vomica, and its dose is from five to ten minims. It is the old Dublin formula of 1826, (two ounces of nux vomica to eight ounces of rectified spirit,) which was adopted in the United States Pharmacopœia, and is the one given in Pareira and other works on materia medica.

The dose of the tincture of the new British Pharmacopœia, which is a much weaker preparation, is from half a drachm to a drachm.

It is usual to order nux vomica, in these doses, to be taken steadily three times a day for several weeks. But when a more powerful and speedy action is required, it is given in increasing doses cautiously, until some obvious effect is produced upon the system. Either mode might justly be considered as extremely safe, yet we have a case on record where it was otherwise.

Taylor, in his work on poisons, states that a lady taking three grains of powdered nux vomica three times a day, as directed, was compelled to discontinue its use on the sixteenth day, on account of the colic and purging it occasioned; five days afterwards, although not taking the remedy, she experienced ringing in the ears, drowsiness, increased sensibility to light and sound, and numbness and impairment of speech. And on the ninth day she lost her speech, and tetanic symptoms with twitchings of the muscles of the face and arms set in, as well as trismus. She swallowed with difficulty, her pupils became dilated, and her skin hot. On the twelfth day after discontinuing the nux vomica, she died exhausted from tetanic convulsions.

This exceptional case, occurring eight years since, has not seemed to affect the confidence of the profession in the remedy, for it is constantly prescribed in various diseases in a similar manner, and with impunity. And as the knowledge of its remedial powers is ever increasing, so is its employment becoming continually the more extended.

Fatal Doses.—Taylor speaks of two cases, in which fifty grains of powdered nux vomica proved fatal. And of another, where thirty grains of the powder in two doses of fifteen grains

each, caused the death of a girl ten years of age. And, according to Guy, three grains of the alcoholic extract have likewise proved fatal.

It is unnecessary to dwell upon the excellent results obtained from nux vomica in pyrosis, gastrodynia, dysentery, colica pictonum, prolapsus of the rectum, tremor of drunkards, hysterical borborygmi, impotence, etc., etc., which are given in Pareira. We shall, therefore, take up the subject where it is there left off, and quoting from Stille's admirable work on materia medica, and from other sources, endeavor to give our readers an additional and more recent synopsis of the opinions of the profession concerning this agent.

Paraplegia.—Dr. Brown Sequard says that nux vomica should be avoided as a most dangerous poison, in all cases of paraplegia in which there are signs of congestion or inflammation of the spinal cord or its meninges, for in these it but increases the cause of the paralysis, and produces an aggravation of the symptoms. He says there are two distinct groups of cases of paraplegia, one distinguished by symptoms of irritation, the other characterized by the absence of them. The symptoms of irritation observed in the former class, are convulsions, cramps, twitchings, erection of the penis, formication, and itching; diminution of temperature, wasting of the muscles, œdema, bed sores, and alkaline urine. In the second class all these symptoms are wanting, and the paraplegia is caused by the white or non-inflammatory softening, or is of the reflex kind; for this class nux vomica is particularly applicable, from the power it possesses of augmenting the amount of blood sent to the spinal cord and membranes, and, from the extra nutrition thereby derived, of increasing the vital properties of this nervous centre. *Braithwaite* $\frac{43}{26}$.

Recurring Hordeolum.—Dr. S. C. Sewell of Ottawa, states that he has lately been very successful in the treatment of obstinate stye by means of small continuous doses of tincture of nux vomica, and gives two cases in illustration. The first, that of a young lady whose eyes for upwards of four years had never been entirely free from styes, and who had lost her eyelashes from them. He prescribed four minim doses of the Dublin tincture twice a day, and found the effect immediate; for the stye then forming, receded, and she has not been troubled with more than two or three of them since, (now two years and a half.) She took the medicine regularly for six weeks, and has twice resorted to it for a similar period since. The other was that of a girl of fifteen, who for two years had constantly been troubled with styes, and this too was cured by four minim

doses of tincture of nux vomica. The stye she had on her eye at the time, suppurated, but she never had another one afterwards (now two years.) He says that cases of recent hordeolum yield quite as readily to this treatment as those of long standing.

Abscess of the Labia Pudendi.—Dr. Sewell also relates a case of obstinate recurring abscess of the labia, which regularly made its appearance a day or two before or after the menstrual period. The lady had thus been afflicted nearly every month for four or five years, and had consulted a great number of physicians in vain for relief. On inquiry he found that they first made their appearance on the cessation of obstinate styes, with which she had previously been troubled for a couple of years. Considering the case vicarious to the styes, he put her at once upon six minim doses of tincture of nux vomica, giving it twice a day as before. The treatment proved immediately successful, and up to the present (now a year and a-half) she has not been troubled with them but once or twice.

In Skin Diseases.—Dr. Sewell remarks that he has found nux vomica to produce an excellent effect on skin diseases occurring in cachetic or scrofulous subjects, by rendering them more readily amenable to local treatment, and instances impetigo of the scalp in particular. For a similar reason he also suggests its employment in strumous ophthalmia.

In Tetanus—In 1847, Dr. Fell of New York, published seven cases of tetanus, six of which were certainly of the traumatic variety, and which all recovered under its use. His plan of administering it was to give an eighth or a tenth of a grain of strychnia, and in two hours a sixteenth of a grain, thus reducing the dose still further, and only to the extent of producing specific signs of its influence after each one. Dr. Kolloch, also relates a case of traumatic tetanus, occurring in a negro girl, which was cured by strychnia, given in doses of a twelfth of a grain every two hours. *Stille* $\frac{2}{245}$.

In Hysterical Spasm of the Œsophagus.—We have the report of a case which yielded to increasing doses of nux vomica, continued until the system became affected.

In Prolapsus of the Rectum.—Koch of Stuttgart, speaks of a cure he effected in a case of fifteen years standing, by the employment of cold water injections, medicated by the addition of twelve drops of tincture of nux vomica. And Dr. A. Johnson has been equally successful by the application of strychnia (a sixteenth of a grain) to a blistered surface over the coccyx. *Oper. cit.*

In either Incontinence or Retention of Urine.—When de-

pending on impaired power in the muscular coat of the bladder from habitual distension, or from pressure by the uterus, the operation of nux vomica is generally very efficient. It has been employed in cases occurring after parturition. And Solly has given it successfully in incontinence after lithotomy. Lecluyse, in retention from paralysis, injected a solution of strychnia into the bladder. In incontinence of urine in children, Mondiere, Ribes, Guersent, Mauricet and others, found the alcoholic extract of nux vomica better than all other remedies. Trousseau, however, thinks belladonna superior. *Oper cit.*, $\frac{2}{245}$.

In the Vomiting of Pregnancy.—Dr. Kroyher of Presburg, considers the tincture of nux vomica a specific. He directs a few drops to be taken in a little aromatic or cherry-laurel water, increasing it to ten, twelve, or eighteen drops, if necessary, every morning early, and in the evening. Br. $\frac{2}{156}$.

In Hay Fever.—Mr. Gream has found it very useful in removing the coryza. He orders from ten to twenty drops of the old tincture three times a day, and the application of Goulard's cerate to the nose. *Braithwaite* $\frac{22}{7}$.

In Facial Neuralgia.—Dr. Rœlants of Rotterdam, has furnished a favorable account of the treatment of both old and recent cases of facial neuralgia by nux vomica. Twenty-five out of twenty-nine, he states, were cured and three were still under treatment. All he says, yielded to the remedy with singular rapidity. *Stille* $\frac{2}{247}$.

In Lead Colic.—Nux vomica is highly recommended by Dr. Serres, Dr. Huss of Stockholm, Dr. Neligan of Dublin, and Drs. Swett and Bulkley of New York. The dose of the Dublin tincture is from ten to thirty drops according to the course of the disease; it is to be administered also in clysters, and applied to the abdomen on cataplasms. It generally gives relief in forty-eight hours, the bowels acting and the pain subsiding.

In Chronic Rheumatism.—The external use of equal parts of tincture of nux vomica and soap liniment is strongly recommended by Kessel. *Stille* $\frac{2}{247}$.

In Dysmenorrhœa.—Rademacher combines tincture of nux vomica with tincture of castor in equal proportions, and directs thirty drops to be taken five or six times a day.

In prolonged after-pains.—He finds it to give relief when administered in a similar manner.

Gastric Irritability.—There are various forms in which this remedy may prove extremely beneficial. In true gastralgia, a disease in which paroxysmal pains of various characters, but always intensely severe, are felt in the stomach and radiates from thence to the chest, hypochondria, and back, followed by

the eructation of gas and insipid or acid liquid. Rowland gives a quarter of a grain of the extract of n. v. in such cases, three or four times a day.

In irritability accompanied by gnawing pain at the pit of the stomach and vomiting of food, Dr. Huss prescribes one grain of powdered nux vomica with ten grs. of magnesia, three times a day, increasing every third dose by half a grain. He says that it often gives instant relief, and does not require continuance longer than from ten days to a fortnight.

In cases of gastric irritability in which the patient is anæmic, and iron cannot be borne, small doses of nux vomica enables the system to tolerate and derive benefit from ferruginous remedies.

In Dyspepsia.—Werber has found it of signal benefit when the biliary secretion is defective, the digestion slow, the appetite impaired, the bowels torpid, and the spirits depressed. A condition which is apt to follow excesses in study or business, in eating, drinking alcohol liquors, tea or coffee, and in venereal indulgence. *Stille* $\frac{2}{248}$.

In Constipation.—Drs. Copeland, Neligan, Clark and others, recommend nux vomica in all cases depending merely on deficient tone of the muscular coat of the bowels, and an imperfect propelling power in the upper part of the rectum, *Braithwaite* $\frac{33}{158}$. All alike agree that it should be combined with some gentle purgative to promote its action. Mr. Boult of Bath, finds a pill of half a grain of the alcoholic extract of nux vomica, $\frac{3}{4}$ of a grain of aloes, and as much rhubarb to act nicely in such cases, and never to lose its laxative power although taken daily for months. He says that he has never derived much benefit from nux vomica alone in costiveness. Br. $\frac{18}{133}$. An excellent resume of the opinions of the profession on the effects of this remedy in costiveness may be found in Braithwaite $\frac{24}{127}$. Dr. Byford in his new work, reviewed in this issue, also adds his testimony to the usefulness of nux vomica for the removal of constipation. And although advising watchfulness during its employment, states that he has never noticed any evil effect from its use, beyond a slight inconvenience in the way of nervous startings, although constantly administered for weeks [124]. A favorite prescription of his is five grains of powdered nux vomica with a grain of quinine three times a day after meals; but he often orders it likewise with iron by-hydrogen in a similar manner [122].

In Spasmodic Obstruction of the Bowels.—Vidal procured relief by using a sixteenth of a grain of strychnia every four hours. Dr. Parker of Charleston, has likewise reported a case

of obstruction of the bowels, which, after resisting various purgatives and enemata, yielded to strychnia, given in doses of a twelfth of a grain three times a day. Homolle is stated not only to have removed impacted fæces by its means, but actually to have relieved strangulated hernia, when the necessity of an operation seemed to be inevitable. Stille $\frac{2}{249}$.

Dysentery.—The tonic influence of this remedy upon the bowels is farther shown by its efficacy in some forms of dysentery. In the last century, Hagstrom employed powdered nux vomica in scruple doses with wonderful success. Hufeland also resorted to it, with the happiest results, in an epidemic of dysentery at Jena, in 1795. He prescribed rather less than a grain of the extract every two hours. In his Enchiridion (p. 366,) he directs but ten grains of the powder daily, and this only after other means have failed. Rademacher has found it occasionally necessary to combine it with opium. Mr. Vaux of Ipswich, gave as much as seven grains of the powder three times a day, and reported his success as remarkably uniform. Frisch prescribed it with advantage in sub-acute dysentery, and Ricamier in chronic diarrhœa.

Diarrhœa from Exhaustion.—Dr. Nevins of Liverpool, highly recommends the employment of nux vomica in diarrhœa from exhaustion, and especially when occurring among the poor and in children. He was led to its adoption from the frequent disappointment he experienced in the employment of astringents and ordinary tonics in such cases. His favorite prescription is as follows:

Alcoholic extract nux vomica, pulv. rhubarb, and blue-pill, of each half-a-grain; saccharine carbonate of iron, one grain; opium, an eighth of a grain. M. To be made into one pill if for an adult, or more if for children.
S. One such pill to be taken three times a day.

In many cases he omits the opium entirely. He says that nux vomica exalts the nervous energy of the bowels, and enables the lacteals to absorb the nutriment from the food, whilst the iron is allowed to act as a tonic, and the rhubarb and blue pill to improve the secretions. A change for the better is generally perceptible in a few days, and he has seldom occasion to continue the prescription longer than a fortnight. Braith. $\frac{19}{105}$.

Dr. Bardsley has published six cases of chronic diarrhœa in persons advanced in life, and of feeble constitution, which were cured by the extract of nux vomica, administered in doses of a sixth of a grain three times a day. Stille $\frac{2}{360}$. W. E. B.
—*Canada Lancet.*

MISCELLANEOUS.

The Cattle Plague; Homœopathic Trial in England.—In the *Mark Lane Express* of November 27th, we find the following account of the trial of Homœopathy in Norfolk, England, by which it appears this supposed cure has failed:

"At the meeting of the Norfolk Cattle Plague Association, on Saturday, Mr. Forrester made a lengthened statement as to the results which had attended the homœopathic treatment attempted by Mr. Moore. There was a difference of opinion as to the animals proposed to be placed on the trial register, but Mr. Moore's objections were, at the utmost, against three animals only. Mr. Moore wished to have several animals put on the register, which Messrs. Smith and Wells objected to as not being sufficiently developed cases, but inasmuch as these animals were not thereby deprived of homœopathic treatment, the question of their recovery or death was not affected by the course adopted. It was to be regretted that Mr. Allen, in the exercise of his discretion, had thought proper to kill his two cows which were placed on the register; but, after all, it did not affect the question at issue; the cows had been for a long time under treatment by chlorate of potash. Three other cows which were ill at Mr. Allen's were killed on the 15th and 17th, and five more had been killed since, one of which had been under arsenicum for a month. The others had also been killed. All Mr. Allen's cows had been under arsenicum. Of Mr. Reid's cattle, two cows and two bulls were put on the register on the 16th; one cow died on the 20th, and another on the 21st; one bull on the 18th, and the other on the 20th. Mr. Reid's stock had been 41 in all; one was killed, 38 had died, and two buds (those beginning to shows their horns) were now convalescent. At M. C. Atkin's one cow was put on the register; the bull was thought to be sickening, but was not registered; both had been under homœopathic treatment by Mr. Buckenham, the inspector; the cow died on the 22d, the bull on the 23d. Nothing remained on the farm on the previous day (November 24th) but ten grazing bullocks, one of which showed decided symptoms of rinderpest. At Mr. Carman's of Weston, one cow was put on the register on the 16th, and died on the 20th; another cow which was ill on the 16th, died on the evening of that day; of three other cows alive on the 16th, one died on the 23d, another was very ill on the 24th, and the other was convalescent, but the pulse was 84, and the respiration 32. Of ten young beasts two had died, and two were very ill. The stock on this farm

had been tended carefully, and had been put under homœopathic treatment as they fell ill. At Mr. Savory's, Sparham, five bullocks, one bull, and three calves had died previous to Monday, November 20; seven others had died since; one had recovered; all were treated with homœopathic medicine. At Mr. English's, of Lynne, two of three cows placed under Mr. Moore's treatment had died. Two buds had died, and two spotted buds were now falling ill, and three calves and two cows were well. A letter was read from Mr. Moore, refusing to proceed further with the trials, on the ground that he had not had fair treatment. Mr. Forrester expressed his opinion that the treatment of animals after they had passed the first stage of the disease had resulted in failure. Lord Bury argued that the result was not conclusive, as Mr. Moore had only been a few hours in Norfolk. A London committee were ready to send down a staff of homœopathic surgeons to work the matter properly, but $1,000 would be required for the purpose. Would the association find a portion of this sum? The matter was, after some discussion, referred to the sub-committee, and the meeting soon afterwards adjourned."

Dr. Kidd's Homœopathy.—Our faithful and orthodox readers may, perhaps, think us wavering; but we cannot forbear the expression of our satisfaction at the progress of homœopathy, and of a feeling that we should scarcely be sorry if all the cows in the country belonged to Dr. Kidd. Dr. Kidd, it would seem, has cows; and one of these caught the plague by grazing in a field adjoining a meadow where several cows had died a month before. The treatment of this animal by Dr. Kidd afforded the Doctor an opportunity of a letter to *The Times*. One case, it must be admitted, can supply only an infinitesimal amount of experience; but we must take the Doctor's letter for what it is worth, and get as much light from it as we can on the nature of those measures on which homœopathists rely. Homœopathy, according to Hahnemann, was a mystery only intelligible to mystics. In a homœopathic maxim, which he said could "*not be refuted by any experience in the world*," he averred that "the best dose of medicines was always *the very smallest one in the one of the high dynamizations*." His favorite quantity, in his earlier days, was the decillionth of a grain —a quantity which algebraists declare to be unprocurable, and which would require a mass of material for admixture larger than the earth itself. He lived, however, to think this dose too large, and to declare his decided preference for the mere smell of a drug, even if it were destitute of odor. "Olfaction" be-

came his favorite remedy in both chronic and acute diseases. "I can scarcely name," he says, "one in a hundred out of the many patients who have sought the advice of myself and assistant during the past year whose chronic and acute diseases we have not treated with the most happy results *solely by means of this olfaction.*"

Such was Hahnemann's homœopathy, which has always been unintelligible to the uninitiated. Let us compare it with Dr. Kidd's, and our readers will then understand what we mean by the progress of homœopathy, and by our satisfaction at this progress.

Dr. Kidd's cow that had the plague got the following things in the course of its treatment, each of which, for clearness' sake, we shall give separately, and much in the order in which they occur in the Doctor's own narrative:

1. One-tenth of a grain of arsenic every two hours, day and night, finally doubled, making one-fifth of a grain; by no means an impalpable dose that would escape the analysis of Dr. Taylor, as the medicine of the old globules did, seeing that our ordinary allopathic dose is one-sixtieth of a grain.

2. When the arsenic was doubled in quantity, the mysterious principle of alternation was had recourse to, and one-fiftieth of a grain of phosphorus added to the medicine.

3. The warmest and best-ventilated shed.

4. "Quarts of barley-meal gruel poured down" day and night.

5. Filled the shed with steam, and by the labor of four men converted it into a vapor bath.

6. The cow having calved, and thought to be dying, Dr. Kidd got them (the four men) "to pour down her throat four bottles of Barclay's stout in eight hours."

7. The cow being nearly dead, "but determined not to give her up, I ordered the *gruel to be made with old ale*, the bottled stout being also continued."

Little by little she recovered. Dr. Kidd was rewarded for his perseverance by seeing his cow eat hay and take branmashes —by seeing the milk come, and the calf (for it was born alive) take the milk and thrive on it: and, for aught we know, there has been no interruption in the convalescence.

And shall we not rejoice with Dr. Kidd over his recovered cow? We shall and do. We are concerned, indeed, for the peace of Hahnemann. Could he but know that one of his most distinguished disciples had such vulgar notions of "high dynamization" as is represented in the pouring down by four men of these quarts of gruel, Barclay's stout, and old ale—in warm

fresh air—and last, and evidently least, in arsenic and phosphorus (not in your imponderable quantities, such as would be got in the smell of a lucifer match, but in highly appreciable and very heavy doses,)—doubtless he might fear that "experience had refuted" his most cherished maxims. But, barring this consideration, how great is the progress of homœopathy! how it rises to sense and science! We could wish, indeed, that Dr. Kidd had told us his confidential opinion as to the respective credit which these various measures are to have in regard to the result—whether the fifth of a grain of arsenic and the fiftieth of phosphorus, which we shall put in one scale, or the air, warmth, gruel, stout, and ale, which we shall put in another, had most to do with the cure. It is due to the Doctor to say that the allusion to medicines is mild and modest. The medicines subside beautifully in the narrative, and disappear in a scene of warmth and comfort and good cheer. But we seek information: which of these things was homœopathic to the disease? Would that all the poor cows had Dr. Kidd and his four men to attend them! We have heard of sad failures in the homœopathic treatment of cattle plague. Which homœopathy was it, may we ask? Was it Hahnemann's or Dr. Kidd's—homœopathy, or allopathy in disguise?—*London Lancet*, February, 1866.

May 3d. Dr. PACKARD made a verbal communication on the subject of Anæsthesia, as follows:

My attention was attracted a few days since by an article, from the pen of Dr. Lente, of Cold Spring, N. Y., published in the last number of the *New York Medical Journal*, and entitled "Sulphuric Ether *versus* Chloroform." In that article Dr. L., who is well known as an advocate of the use of ether by his writings in various periodicals, says: "This fact I regard as settled—that a patient may be brought under the influence of sulphuric ether as quickly as he can safely by chloroform, and with a quantity costing less, and weighing but little more than the requisite amount of the latter; the objection, then, sometimes raised by army surgeons, of increased trouble of transportation, is not tenable.

"If any doubt this fact, after referring to the statistics above alluded to,* *I will agree to go to any hospital where a large number of operations are being performed, and demonstrate it to the satisfaction of the opponents of ether.* * * * *

* Given by Dr. Lente in the American Journal for April, 1861, in the American Medical Times, June 28, 1862, and in a Report of the Committee of the Boston Society for Medical Improvement, published in 1861.

"The recently published report of the Royal Medical and Chirurgical Society of London, adverse to the employment of sulphuric ether, and the recent occurrence of so many additional cases of death from chloroform poisoning, have forcibly recalled my attention to this subject, and at the risk of charge of egotism, induced me to make the offer which I here repeat; in other words, that is, to guarantee to get a number of patients, in any hospital, under full anæsthesia with sulphuric ether in a short a time as can safely be done with chloroform, and with a quantity not exceeding an average of two ounces and a half, the average time two minutes and a half. The average time and quantity would probably be less in the ordinary run of hospital cases (not more than half as much in cases of considerable debility, and after hemorrhage or insufficient nourishment, as in many cases in military surgery.")

Until the fall of 1864, I had been in the constant habit of administering chloroform for the purpose of inducing anæsthesia, and in hundreds of cases have never seen any injurious effect from it. My reason for preferring it to ether was the greater facility of carrying it, the very much smaller quantity required, and the more agreeable character of its influence. A case which occurred then, however, (reported by me to the College, and published in the *American Journal* for January, 1865,) in which death was imminent, and averted only by the prompt use of an electro-magnetic battery, shook my confidence; and it was shortly followed by another, in which death actually took place, at the Beverly U. S. A. Hospital.

Another case has very recently occurred to me, in private practice, in which chloroform, given to a patient already nearly insensible from ether, was productive of alarming symptoms.

Dr. Lente's statements, as before quoted, led me to write to him to inquire as to the method of administering the ether, in order to obtain the effect in so short a time, and with so small a quantity of the article. His answer to my question is contained in the following extract from his letter:

"All you want for the efficient administration of ether, after procuring a pure article (and Squibb's I prefer to any other,) are stiff paper and a rather stiff and thick towel, if one can be had—if not, any will do. I usually take a newspaper—as that is to be had in every house—fold it, so as to make it about eighteen inches long and seven to eight broad; fold the towel so as to correspond, lay one on the other, fold them so as to form a cone, with the *towel inside*, and pin them securely, especially the edges of the towel inside, so that it will not fall on the face and annoy the patient. The apex of the cone must be

folded tightly, so that *no air* can enter. If the cone is rather elongated, I stuff a white handkerchief tightly into it, so not to have its capacity too great. You see the great object is to have the vapor *as concentrated as possible*, just the reverse of what is safe with the vapor of chloroform. The patient being all ready, I explain to him fully how to inhale the ether, and the unpleasant symptoms which he will probably experience at first, assuring him of the perfect safety of the process (which cannot be done in the case of chloroform.) I then have some one to take hold of his hands quietly, so as to be ready to arrest any sudden movement towards tearing away the inhaler from the face, and other assistants to look out for other violent movements, so that the process, when once commenced, shall not be interrupted for a moment. I then pour on, from a three or four ounce bottle, with not too narrow a mouth, about a drachm or two of ether (if I am anxious to use as little as possible,) if not a little more, until I ascertain the capacity of the patient for breathing it; if he does not cough or strangle, I put it in close contact, taking care always not to press in the sides of the cone, so as to encroach on its capacity, holding it with *both hands*, near its edges, and pressing them pretty firmly, at all points, against the face. If he persistently hold his breath, as patients occasionally do, or strangle in any considerable degree, I remove it *slightly* from the face for a moment. In a very short time, I throw on an ounce more of ether, and then keep the inhaler in close contact with the face; this is repeated, scarcely ever using more than three or four drachms at each fresh application, until the etherization is effected. A very important point, and one most generally neglected, is to keep the inhaler away as short a time as possible when replenishing the ether, *throwing it on*, and not deliberately pouring it on, as I usually see done. As long as the patient retains consciousness, if he does not follow my directions with regard to full and rapid inspirations, I now and then call loudly, in his ear, *breathe strongly!* No matter how hard his struggles are, after he has commenced to breathe fully, I never 'let up,' but keep the cone remorselessly pressed against his face, and ply him still more strongly with the ether. This must be especially attended to in the case of all children, for with them it is generally a struggle from the beginning, whether ether or chloroform be used, and it is neither necessary nor practicable to get their confidence so as to ease them with the inhalation, as I have described above in the case of adults. Their cries and consequent full inspirations cause them to succumb very rapidly.

"By following these directions you will, after a little practice,

etherize your patients as quickly and with as little trouble as you can safely chloroformize them—that is, in from three to four minutes (average,) and with from one and a half to two and a half ounces of ether. But if you choose to use from *two to three* ounces of the drug—and more than the latter is almost never necessary—you may shorten the time by a minute. I speak of comparatively robust adult subjects; with feebler, less time and less ether are required. It is better to have no current of air about the patient during the process, if possible. It is important to be fully impressed with the fact that there is absolutely no danger of death from *too sudden action* of the ether, otherwise we will not give it with sufficient confidence to insure a prompt result. The little danger attaching to ether is from *prostration*, which always occurs after the operation is over, and the patient has recovered his consciousness. I have, in several communications, insisted that the pulse should be watched for a time after the administration of ether, especially in delicate subjects, or if there are any indications of extreme debility. I have had, and have published several cases of severe prostration succeeding etherization, but I have never seen any case where I could get a patient too suddenly under the effect of sulphuric ether. It is not surprising that when the manner of administering the two agents is so entirely different, those who have generally been in the habit of using one, should fail when attempting to employ the other, until they have become thoroughly accustomed to it. I gave ether a short time ago to myself, in the hospital at West Point, unassisted, and became completely insensible with half an ounce, so as to be unconscious of the extraction of a molar tooth by the hospital steward, Mr. Saunders. A few days after, with a four ounce bottle of ether, I etherized three patients, from whose jaws the steward extracted at least forty teeth in the aggregate, and used only about three-fourths of the contents of the bottle. As regards the *nausea* and *vomiting*, referred to in your letter, if no food be taken for four or six hours before the operation, there is seldom any trouble worth mentioning. It is usually well to give a little brandy and water or a glass of wine before the operation, especially if the subject be feeble. And in case of severe operations, if much prostration supervenes, I give an enema of brandy and water. I have thought for some time of having an inhaler constructed of silver wire network, with a cone of woolen over it, and some impervious material over that, as suggested by my friend, Prof. T. G. Thomas, but I succeed so well with the extemporized apparatus above described, that I have not yet had it done."

I have not yet had an opportunity of trying this method of administering ether, but, from what I know of Dr. Lente, I am inclined to place great confidence in what he says. It is very doubtful whether we ever obtain any other anæsthetic agent at once so safe and so efficient as sulphuric ether; we certainly have not found any such as yet. If, therefore, we can improve upon the methods now generally in vogue for its administration, we shall do well to prefer it to its more dangerous rivals.—*Am. Jour. of the Med. Sciences*, Jan., 1866.

Modification in Canquoin's Caustic Paste.—This valuable caustic would be still more employed were its application not somewhat difficult; and one of M. Demarquay's pupils has contrived a modification in its composition which renders its application very easy and effectual. The paste thus formed consists of chloride of zinc ten, flour twenty, and glycerine four parts. So prepared, it can be applied to the part to be destroyed with great facility, however varied this may be in shape or direction, and can easily be washed away. M. Demarquay has frequently employed it, and finds the paste thus prepared with glycerine instead of water far preferable, both with respect to its application and the results.—*Med. Times and Gaz.*, Dec. 2, 1865, from *Bull. de Therap.*, Sept. 15.

EDITORIAL.

RUSH MEDICAL COLLEGE—TWENTY-THIRD ANNIVERSARY.

The session, which has just been brought to a close, has been one of unusual satisfaction to the Faculty, and, if we may judge by their expressions of gratitude and interest, to the students of the College also.

While the Faculty feel that they have performed their daily duties punctually, from the day on which the session opened, to the very day it closed, they must give the class credit for unusual promptness and regularity of attendance.

The classes for the past three years have been considerably larger than those of previous years. Of the class in attendance during the past session, numbering two hundred and ninety-three, there were ninety who passed the examination for the degree of doctor of medicine.

The *ad eunden* degree was conferred upon Albert H. Hoy, M. D., Wisconsin; W. Louis Rabe, M. D., Illinois; J. J. Brown, M. D., Wisconsin; W. Y. Leonard, M. D., Indiana. The Honorary degree of Doctor of Medicine, was conferred on Gerhard Christian Paoli, M. D., Chicago.

Laudatory notices of annual commencements are invariably to be expected as a matter of course, as can be attested by consulting the published accounts of such exercises in any Medical College for years past.

We have no doubt, every class which has attended the regular course of lectures in Rush Medical College, has been better in nearly every respect than any preceding class. And yet, the Alma Mater has no reason to turn in shame from even her older children, when she sees how many of them have acquitted themselves nobly in the conflict with "disease and ignorance." We believe the class which has just graduated is better, absolutely—possibly not relatively—than any that has ever yet left the College. One would naturally expect this, for even in our decade, with the increase of population, and the accretion of wealth in the Northwest, the colleges, schools and other means of securing an education have been wonderfully developed. With these the general culture and education in the young men, who present themselves as students of medicine, have become proportionately superior to those of former times. Their opportunities have been better; they enter upon their professional studies with the feeling, that, for this reason, more will be expected of them. What we have here said of this class, we hope may be said in truth of every future class. As the country, and as Chicago develops its wealth, increases its population, and multiplies the means of education, so will ever improve, we trust, the true culture and education of those who enter upon the study of medicine.

It must be a matter of interest to the friends of the College to know, that the Board of Surgeons and Physicians of Cook County Hospital (recently opened,) after a careful examination of all applicants for the position of Resident Surgeon of the Hospital, unanimously declared Dr. N. I. Quales, of the graduating class, as the successful competitor.

It is also worthy of notice, that the prize for superiority of anatomical preparations was awarded to Mr. R. F. Ludwig, a student of dentistry, in the office of Dr. W. W. Allport, who is better fitting himself for the practice of his profession by the careful study of medicine. Every effort should be made to encourage all students of dentistry to pursue a thorough course of medical studies in connection with those of their especial department of science.

The twenty-third anniversary of the College was celebrated on the evening of January 24th. As the large number of the class and of their friends could not be accommodated in the Lecture-room of the College, the exercises were held in one of the public halls of the city. The presence of ladies, and the discourse of fine music by the orchestra, added to the pleasures of the evening.

In absence of the President of the College, Prof. Brainard, the degrees were conferred by Prof. Freer.

The valedictory address of Prof. Allen needs but little comment. It will be read with pleasure and profit by practitioners of long experience, as well as by those who are entering upon the more active duties of their profession. It was received with oft-repeated applause by the audience.

THE AMERICAN MEDICAL ASSOCIATION

Will hold its annual meeting at Baltimore on the first Tuesday of May next.

The meeting at Boston last year was unusally large, and proved highly profitable as well as pleasant to all in attendance. A full meeting may be expected this year at Baltimore. The profession of the Northwest should be well represented.

The character of the members appointed on the different committees, will undoubtedly ensure most valuable papers on the various subjects selected for special reports.

Since the annual meeting of the Illinois Medical Society will take place at Decatur, on the first Tuesday in June next, one month after that of the National Association at Baltimore, it will be necessary for the delegates of the State Society, ap-

pointed at Bloomington last year, to the National Association, to act also this year as delegates to the coming Convention at Baltimore.

The following are the names of the delegates: A. L. McArthur, M. D., of Joliet; L. T. Hewins, M. D., of Loda; J. W. Redden, M. D., of Shawneetown; J. M. Steele, M. D., of Grandview; J. S. Jewell, M. D., of Chicago; H. Noble, M. D., of Heyworth; T. F. Worrell, M. D., of Bloomington; E. L. Holmes, M. D., of Chicago; J. W. Freer, M. D., of Chicago; E. W. Moore, M. D., of Decatur; A. Niles, M. D., of Quincy; A. W. Heise, M. D., of Joliet; R. E. McVey, M. D., of Waverly; L. Clark, M. D., of Rockford; H. H. Luce, M. D., of Bloomington; D. Prince, M. D., of Jacksonville; D. Brainard, M. D., of Chicago; W. A. Elder, M. D., of Bloomington; J. Brown, M. D., of Decatur; N. Wright, M. D., of Chatham.

THE ILLINOIS STATE MEDICAL SOCIETY.

The regular annual meeting of this Association will be held at Decatur, on the first Tuesday on June next. It should be remembered that the meeting is appointed one month later than usual, to give members of the Society an opportunity of also attending the meeting of the National Association at Baltimore, on the first of May.

It is perhaps useless to urge upon the profession of Illinois a large attendance upon the meeting at Decatur, for past experience has shown that comparatively few physicians take sufficient interest either to prepare original contributions for the Society, or even to be present at its meeting. The practising physicians of Illinois should not forget, however, that there are advantages in such an organization, which they all, directly or indirectly, might secure.

For one, we believe the Society, even in its present condition, accomplishes a good which is felt throughout the State, although most practitioners might scarcely be conscious of it. We believe also, that it is the small beginning of an organization which in the future is to exert a great and good influence not only on the profession but on the people of the States.

The interests of the profession are certainly advanced by the local, as well as by the State and National Associations. With all their imperfections, they tend to advance medical education by encouraging writing and discussion, and to strengthen the efforts of the profession in carrying forward reforms in hygiene, quarantine, registration of births, marriages and deaths, and in preventing immoral advertisements. A persistent, well directed effort on the part of a State Medical Society, composed of judicious delegates from every county and large town, could ensure in the State Legislature the passage of almost any act really important for the welfare of the people.

If our counties fail to accomplish all that is desirable, there is so much the reason why members of our profession, instead of simply finding fault with their imperfections, should make more combined effort to improve their character and increase their influence, if not by original contributions, at least by their presence and encouragement.

This could be done with but a small tax upon the time and energies of each individual, although organization cannot be extended to banish all ignorance and prejudice from our people, or even from our own ranks, or to wholly counteract the efforts of charlatanry, it can aid in placing medical science higher in the estimation of the public, and teach the people to better appreciate the councils of enlightened physicians in public measures to prevent and overcome disease.

COOK COUNTY HOSPITAL.

The Cook County Hospital was opened to the public on the tenth of January. The building has been cleansed and refitted throughout, so that it offers accommodation equal to any other charitable hospital in the country. In addition to the public wards which are designed for the reception of the pauper patients of the city and county, there are suits of apartments prepared for the use of patients who desire to enjoy the advantages of hospital treatment without sacrificing the privacy of home. Judging from the number of applications for accommo-

dation of the kind, this will prove to be for the public one of the most attractive features of the institution.

The wards of the hospital will be open to medical students, and to all regular practitioners of medicine, on Tuesday and Friday of each week throughout the year, at half-past one o'clock P. M. From the first of October to the last of May, a medical and a surgical clinic will be held on each of the days above mentioned. During the remaining four months of the year there will be a medical clinic every Tuesday, and a surgical clinic every Friday. As far as possible the *post mortem* inspection of the dead will be made in the presence of those who desire to follow the practice of the hospital, and no effort will be spared to render available the materials which may be furnished for the study of pathological anatomy.

The immediate care of the patients is confided to a resident physician and his assistant, who constitute, under the direction and supervision of the visiting physicians and surgeons, the house-staff of the hospital. An examination will be conducted every spring and fall by the Medical Board of the hospital, at which time appointments to fill the vacancies which will occur in the house-staff, through the expiration of the terms of service of its several members, will be conferred upon the most deserving of the applicants for position in the hospital. As the examination is open to all who choose to apply, and as the awards of the examiners are based wholly upon the merits of the candidates, this arrangement affords a rare opportunity for young men who desire to supplement their theoretical knowledge by a practical introduction to the labors of the profession under circumstances the most favorable to the acquisition of experience.

The recent examination resulted in the selection of N. I. Quales, M. D., a member of the class recently graduated at the Rush Medical College, for the position of resident House Physician to the hospital during a term of one year from Feb. 1st, 1866. Mr. W. H. Hutchinson, of the junior class at the Chicago Medical College, received the appointment of Assistant House Physician for the same period of time. As these appointments are based solely upon the merits of the candidates as determined by a strict and impartial examination before a com-

mittee of the Medical Board of the hospital, they constitute the highest prize that is afforded for the competition of the medical students who gather in this city.

Obituary.—Death of Prof. W. B. Herrick.

We extract from the columns of the *Chicago Tribune* the following notice of the death of Prof. William B. Herrick, M. D., who, for a number of years subsequent to the commencement of the second volume of this JOURNAL in 1846, was one of the prominent members of its editorial staff:

On the last day of December, 1865, in the Insane Asylum at Augusta, Me., died Dr. William B. Herrick, formerly of this city. The intelligence of this painful termination of an useful and honored life will be received with sadness by many of our older citizens, to whom deceased was well known as the possessor of rare personal and professional qualities, demonstrated during the years of surgical career in Chicago. Dr. Herrick, at the time of his death, was about fifty years of age. He was a native of Lewiston Falls, Me. Receiving a liberal education, he came to Illinois a quarter of a century ago, and for several years accumulated a practice and reputation in the interior of the State, whence he was called about the year 1845 to fill a chair in Rush Medical College in this city. Few who have been associated with him, in the office of medical instructor, ever exceeded him in the influence he had upon his students by the zealous and high-toned ardor that characterized his quest of science, and his own enthusiasm he was skilled in communicating to those who in his guidance pursued the paths of learning. At the outbreak of the Mexican war, Dr. Herrick temporary vacated his chair, and entered the service as surgeon of an Illinois regiment. It is volumes to say of the reputation that he received in the field, when it is stated that at the expiration of the term of his voluntary enlistment, the close of the war, the Medical Bureau of the Government with great regret received his declination of the rare compliment of an appointment to the medical staff of the regular army. But Dr. Herrick's heart was with his college, and he came back with his qualities ripened and strengthened to fill an even more distinguished rank in his coveted place among his fellows. Like too many of those who with him escaped the actual presence of death in the terrible campaigns and climate of Mexico, the destroyer followed him home to prey leisurely but surely upon his

life. Struggling against the disease with all the appliances of skill, his chronic neuralgia became paralysis, terminating in a softening of the brain, reducing the strong framed and acute minded man to the bodily and mental wreck upon which the office of death seemed less kind because delayed through seven long years of darkness. In the loss of Dr. Herrick, dating from the beginning of the painful eclipse of his faculties, the cause of science in the West lost a noble and zealous votary, and our community a valued and generous citizen.

Many of our readers will be pleased to hear that Dr. R. M. Lackey has been appointed Demonstrator of Anatomy in Rush Medical College, in place of Prof. E. Powell resigned. Dr. Lackey has filled with no ordinary distinction for more than four years various positions in the medical service of the army during the late war. He returns with rich experience in the practice of surgery and medicine, not only in the field but in the hospital.

The first semi-annual meeting of the Central States Association of Dental Surgeons will be held in the city of Nashville, Tenn., commencing on Tuesday, April 10th, at 10 o'clock, A. M.

VACCINE VIRUS.—Physicians in the country can obtain healthy and reliable virus, by forwarding $1 to R. M. LACKEY, M. D., P. O. Box 2175, Chicago.

BOOK NOTICES.

Obscure Diseases of the Brain and Mind. By FORBES WINSLOW, M. D., D. C. L., etc., etc. Philadelphia: Henry C. Lea. 1866.

Since the publication of Burton's famous Anatomy of Melancholy, a volume more fascinating than this has not appeared. The deserved reputation of its author is alone sufficient to command the attention of the professional public, while the intrinsic importance of its subject cannot fail to attract every student of medicine, who has a relish for anything above the ordinary level of pill-and-powder books. The study of the brain, that won-

derful apparatus through which the invisible spirit of man acts upon his corporeal frame, ranks at the head of all material studies. It is the indispensable preliminary to all rational progress in purely intellectual investigation of the laws of mind and the nature of the soul; yet, how often is it neglected by those who profess to spend their lives in the analysis of psychological phenomena. Hence the vagaries of spiritualists, mesmerists and mystics of every degree. Most illustrious is the contrary example of Sir William Hamilton, who, to prepare himself for a discussion of the pretensions of phrenology, examined the brains of not less than three thousand subjects. It is by such researches that the true relations of mind and matter are to be determined, and it is in this way that, while seeking to avoid the Scylla of materialism, we fall not into the Charybdis of ultra idealism.

If then the brain is so important an organ, the observation of its disorders must be of paramount importance. To guide the student of cerebral and psychological pathology, is the object of Dr. Winslow. He endeavors to point out the reciprocity of influence which exists between mind and matter, and to suggest the measures which, by warding off disease, or by removing its effects from the material instrument, may preserve unfettered that spiritual agent which is Man himself. "We should never lose sight of the fact that no irritation or inflammatory action can exist for any length of time, in the more important tissues, or ganglia of the brain, without seriously perilling the reason and endangering life. . . . A vast and frightful amount of chronic and incurable insanity exists at this moment in our county and private asylums, which can be clearly traced to the criminal neglect of the disease in the first or incipient stage." *p.* 28. "Men have been hanged for crimes which the physician might have prevented. Many a suicide would be prevented, and murderous and criminal impulse destroyed, if an active cathartic were exhibited, or the cerebral circulation relieved and rendered less active by means of local depletion. Damien declared to the last that, had the vessels of his brain been unloaded by bleeding, as he earnestly requested, he never would have attempted the life of Louis XV." *p.* 121.

Every medical man can recall the details of many a case where the happiness of the family has been destroyed, the decorum of the church disturbed, and the peace of society outraged, by individuals who have been anathematized by the good, and visited with all the penalties of the law for offences which were innocently committed by the victims of obscure disease of the brain, which required the careful attention of the physician, instead of the harrowing censures of courts, civil or ecclesiastical. Many such histories are related by Dr. Winslow, who, however, wisely insists that the plea of insanity should never be allowed to enlarge the defendant who stands convicted of the crime. The criminal whose innocence is established by the proof of insanity, should be ordered to the asylum—he is not fit to remain at liberty.

Our limits will not admit a more extended notice of this admirable work. It cannot fail to interest even the unprofessional reader, for though its subject allies it to profoundest treatises on mental philosophy, the narratives, which illustrate the theme and crowd the pages of the volume, are as absorbing as the wildest inventions of fiction.

The Medical Record.—The first number of this new medical periodical has reached us. It is a semi-monthly journal of twenty-four pages, published by the well-known firm of Wm. Wood & Co., New York. Dr. Geo. F. Shrady, formerly associate editor of the *American Medical Times*, is the editor. The journal in general appearance and arrangement, resembles the *London Medical Times and Gazette*, and promises to constitute one of the most valuable of our exchanges.

NEW FORM OF STEM PESSARY.—This instrument, of which our readers will find an illustration in the advertising sheet of the JOURNAL, is recommended by many eminent obstetricians, and is worthy of a trial by the profession. It is manufactured of vulcanized rubber by Drs. Boyd and Ferree at Indianapolis, Indiana.

THE

CHICAGO MEDICAL JOURNAL.

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ORIGINAL CONTRIBUTIONS.

On the Cause of Intermittent Fever. By HENRY M. LYMAN, M. D., Pathologist to Cook County Hospital.

The January number of the *American Journal of the Medical Sciences* contains an article from the pen of Prof. J. H. Salisbury, of Cleveland, announcing the discovery of the long-sought cause of malarial diseases. The Professor has already distinguished himself as a skilful microscopist and physiologist. The readers of the *American Medical Times* will readily recall to mind a paper on a form of measles originating from a species of fungus produced on damp straw, in which communication Dr. S. suggested a vegetable origin for the camp measles, which was at that time prevailing so extensively in the U. S. Army. Continuing his observations with the microscope, and extending their field, he has at length satisfied himself that the old hypothesis of a cryptogamic origin of the miasmatic poison is correct. The announcement of this discovery constitutes one of the most interesting papers we have ever read,—one which deserves the careful study of every physician throughout the world. If the statements of Prof. Salisbury are confirmed by equally skilled observers in other regions and other climates where miasmatic fevers prevail, his name will rank among the first of the great names of observers who have advanced the cause of science.

It is impossible to refrain from admiration of the patience and perseverance displayed by Dr. S. in the conduct of his researches. For three years, his time was devoted to microscopical investigation of the exhalations of the soil in miasmatic localities. His method was ingenious. Examining the expectoration and urine of patients suffering from miasmatic fever, he discovered in these excretions a variety of microscopical cells of vegetable origin. Only one form, however, was invariably present—a minute oblong cell, "consisting of a distinct nucleus, surrounded by a smooth cell-wall, with a highly clear, apparently empty, space between the outer cell-wall and nucleus." These little bodies were also recognized in the night air of miasmatic regions. To discover their source was the problem which Dr. S. proposed to himself.

Repeating the experiment of the Italian savans, he suspended plates of glass in the vicinity of swampy soil; but, unlike his predecessors in the inquiry, who had been content with the detection of an organic residuum in the dew that condensed upon the glass, he subjected the drops of water thus obtained to microscopical analysis, and finally discovered that the cells, which had been remarked in the expectoration of fever patients, were the spores of a cryptogamic plant which appeared upon freshly turned earth like "a whitish mould, or, more closely, the incrustation of some salt." By exposing plates of glass, dipped in a solution of chloride of calcium, he ascertained:

1. "That cryptogamic spores and other minute bodies are mainly elevated above the surface during the night. That they rise and are suspended in the cold, damp exhalation from the soil, after the sun has set, and that they fall again to the earth soon after the sun rises.

2. "That in the latitude of Ohio, these bodies seldom rise above from thirty-five to sixty feet above the low levels. That in the northern and central portions of the State, they rise from thirty-five to forty-five feet, while in the southern, from forty to sixty feet.

3. "That at Nashville and Memphis they rise from sixty to one hundred feet and more above the surface.

4. "That above the summit plane of the cool night exhalations, these bodies do not rise, and intermittents do not extend.

5. "That the day air of malarial districts is quite free from these palmelloid spores, and from causes that produce intermittents."

Having satisfied himself that the "palmelloid spores" were the cause of malarial fever, Dr. S. proceeded to examine the night air of every locality where ague prevailed, and was successful in discovering the microscopic agent in every instance. The often-observed phenomena of the occurrence of intermittent fever in the track of winds blowing over marshy regions, he at once stripped of mystery by displaying under his object-glass the poisonous spores whose flight he had intercepted. Fevers which broke out in localities where the disease had never before been experienced were thus traced to adjacent excavations of the soil, and were arrested through the destruction of their cause by covering the cryptogamic crop with straw or with caustic lime. The Professor at length put his theory to the test of the following experiment:

"I filled six tin boxes with the surface earth from a decidedly malarious drying prairie bog, which was covered completely with the palmellæ previously described. Cakes of the surface soil were cut out, the size and depth of the boxes, and carefully fitted in without disturbing more than possible the surface vegetation. The covers were then placed on, and the boxes transported to a high, hilly district, some five miles distant from any malarious locality, and where a case of ague had never been known to occur. The locality was over three hundred feet above the stream levels, was dry, sandy and rocky. I here placed the boxes of cryptogams on the sill of an open second-story window, opening into the sleeping apartment of two young men; removed the covers, and gave particular directions, that the boxes should not be disturbed, and the window left open. On suspending a plate of glass over the boxes on the fourth day, during the night, the under surface of the plate on the following morning was found covered with palmelloid spores, and numerous cells of the same kind adhered to a suspended plate in the

room, which was moistened with a concentrated solution of chloride of calcium.

"On the twelfth day, one of the young men had a well-marked paroxysm of ague, and on the fourteenth, the other was taken down with the disease. They both began to feel unnatural and dull about the sixth day. All three stages of the paroxysms were well marked. The type in both cases was tertian, and was readily controlled by the appropriate remedies.

"Four members of the family slept on the lower floor of the house, but none of them were affected."

A few other experiments of the same nature were tried with similar results.

Prof. Salisbury's theory of the cause of intermittent fever, then, may be thus briefly stated:

Certain cryptogamic forms of vegetation are produced upon drying soils, usually where the earth has been recently disturbed by any cause.

These growths produce an almost infinite number of spores, which are dispersed by the damp air of the night, and which by contact with the mucous surfaces of the human body, excite "local fever," which results in either intermittent or remittent fever.

Had the Professor at this point laid down his pen, and written no more, we should have been disposed to put faith in his discovery. But he proceeds still further, and not only makes assertions but draws conclusions which lead us to fear that he has not fully proved his point. In one instance, at least, his data are lacking in accuracy. We refer to his account of the fevers which occurred on College Hill, at Nashville, during the late war. Dr. S. supposes that the fortifications which were thrown up on the hill, in the vicinity of the hospitals, occasioned the production of the severe congestive fevers, which in several instances proved fatal to inmates of the hospitals. Visiting the spot, he found that "the soil on the perpendicular sides of the ditch, which was dug to strengthen the place, was covered completely with cryptogamic vegetation * * * similar to those

(palmellæ) in districts where intermittents are of a congestive type."

Having been ourself on duty in the hospitals on College Hill, during the time of which he speaks, and having barely escaped death from congestive intermittent fever contracted on the spot, we can positively assure the Professor, that the disease could not have been traced to the fortifications in question, for the reason that they were not then in existence. It was the month of September, a considerable time after the occurrence of our worst cases of fever, before the hospitals were removed and the excavations were made which Dr. Salisbury explored. During our occupation of the hill, in the summer of 1862, the only instance in which the soil was disturbed was the excavation of a privy; but, according to the Professor's own theory, the effects of this must have been neutralized by the quicklime which was freely scattered in and around the pit. We discovered, after extended inquiry, that, though the physicians of Nashville would not admit the existence of malaria within the city or in its vicinity, there was in the minds of the unprofessional public a firm conviction that College Hill was a peculiarly miasmatic locality, and that it had always been unhealthy from the earliest settlement of the country.

A slight inaccuracy of this sort, however, is by no means fatal to the argument, for Dr. S. distinctly asserts that "occasionally the soil on the hill, where it had not been disturbed, was covered slightly with this same vegetation." Our incredulity has its origin in other sources. We are not prepared to deny that these "palmelloid spores" may be in some way the cause of intermittent fever, but we do not think that such has yet been proved to be the fact. After examining the urine of several hundred cases of intermittent and remittent fever, and finding cryptogamic spores always present in the urine as well as in the expectoration, Prof. S. considers it safe to say that the results of these examinations "establish the fact that ague plants, the same as grown upon the ague soil, are constantly developing in the system of the intermittent fever patient; and that the urinary organs constitute one important outlet for the elimination of this fever vegetation." From this it logically

follows that, to effect a cure of the disease, "this exciting cause must be carried out of the organism through those excretory channels which nature has provided for the elimination of effete and abnormal products. * * * The sweating stage of the paroxysm of ague is essentially a curative one." The Professor believes then, that the cryptogamic spores find their way into the circulation, where they grow and multiply, poisoning the blood of the patient, and keeping up a series of abnormal manifestations, until they are finally expelled from the system. If this be true, here is a discovery greater than the discovery of the origin of the vegetation itself. Dr. Lionel S. Beale, one of the highest authorities in matters of this sort, declares that "it is very doubtful if the growth and multiplication of vegetable germs can proceed in the circulating fluids of a living body without causing death in a very short time; for the conditions favorable to their existence and multiplication are incompatible with the life of the germinal matter of the higher tissues. The germination and multiplication of very low vegetable or animal organisms in man and the higher animals, are an indication not only that the death of the tissue has taken place, but that it is passing into a state of decomposition. It is true, that bacteria have been detected in the blood of patients during life, but hitherto, only in cases shortly before death, at a time, when the blood in which they grew and multiplied was no longer fit for nourishing the tissues, and was itself passing into decomposition. Millions of bacteria exist in the softened outer portions of the fibrinous clot of an aneurismal sac, and therefore, in such close proximity to the blood that it is almost certain that, from time to time, some pass into the current of the circulation; but, if this were the case, they would be destroyed, or else so altered, that they would cease to multiply. For, before multiplication could take place, changes must have occurred in the composition of the blood which would render it incapable of supporting the life of its owner."

To infer therefore with Prof. Salisbury, that because "palmelloid spores" are found near both ends of the circulatory channel, they also pervade the system itself, seems to us illogical. These organisms, even if discovered in the pelvis of the kidney,

cannot consequently be supposed to multiply and to act *within the patient*, in the strict sense of that phrase, any more than the Sarcina which sometimes grows in the stomach, or the Penicellia, Aspergilli, or Spherotheci, which are also found in the urine of intermittent fever patients. These growths, the Professor recognises as consequences of diseased action, producing conditions favorable to cryptogamic life in the urinary excretion. If it be true, as he asserts, that "in these obstinate cases of the disease, the urine passes rapidly to the acetous fermentation even before it is voided," we can see no reason why the bladder should not be occupied by "palmelloid spores," which have been produced *in situ*. That they are the fruits of a crop which has been nurtured in the circulation, we cannot believe until some one makes a satisfactory demonstration of cryptogamic growth in the current of the blood. We have examined this essay in vain for some note of the appearances of the circulating fluids of patients suffering with intermittent fever. If these spores flourish in the blood and are thrown off with the urine, the Professor can inform us whether the perspiration also contains them; and if they are easy of recognition in the secretions and excretions, their detection should not be very difficult in the fluids of the body, provided, they do actually exist and multiply therein. And, if we believe with the Professor, that the phenomena of intermittent fever are the efforts of nature to eliminate from the system the poison which caused the disease,* will not failure to discover these cryptogamic organisms within the system of the patient prove that the poison to be eliminated is, after all, really something of a different nature?

Dr. Salisbury's paper forms a valuable contribution to our knowledge of the forms of cryptogamic vegetation which flourish in miasmatic localities. We hope that similar observations may be undertaken wherever malarial diseases exist. If it can be satisfactorily proved that these peculiar growths are uniformly present in malarious atmosphere, and that without them intermittent fever cannot be excited, we shall be disposed to believe that, if not the cause, they at least

* "When the tissues have become poisoned to a certain extent, there is a reaction on the part of the system, an effort of nature to eliminate the poisonous products already in the body. This effort is the paroxysm, which constitutes what we call the disease."

co-exist with the cause of the disease; and that they afford the most certain means of recognizing the presence of the miasmatic agent; or, if we may be allowed to drop the theory of blood poisoning, and to assign the phenomena of intermittent fever to the same category with the morbid appearances caused by contact with the exhalations of the poison ivy, it will not be difficult to accept the Doctor's theory of the cause as it stands. Whichever horn of the dilemma is accepted, *more light* is all we ask.

Clinical Lectures on Diseases of the Eye. By E. L. HOLMES, M. D., Lecturer on Diseases of the Eye in Rush Medical College, and Surgeon to the Chicago Charitable Eye and Ear Infirmary.

HYPERMETROPIA—PRESBYOPIA.

GENTLEMEN,—The class of cases, which now in order claims our consideration, is interesting as having till within a few years been almost wholly overlooked by the most careful observers. The credit of first analyzing these cases has often been given to Donders; priority is now conceded, I believe, to Stellwag, of Vienna. The class is characterized by such a condition of the refracting media of the eye, that *converging* rays of light may be brought to a focus on the retina, when the apparatus of adjustment is in a state of relaxation. This condition has been called Hypermetropia, and is an important subject in the science of ophthalmology. You can better appreciate this condition of the eye, by recalling the fact, that in the normal eye, the apparatus of accommodation, in a state of full relaxation, causes parallel or very slightly diverging rays to come to a focus *on* the retina; consequently, very distant objects may be seen distinctly. In Hypermetropia, parallel rays come to a focus, when the apparatus of adjustment is in a state of relaxation, *behind* the retina. As converging rays, on passing through a convex lens, come to a focus at a point nearer the lens than the focus of parallel rays, and as the retina is at a point nearer the crystalline than the focus of parallel rays, the eye is in the case supposed adjusted for converging rays. As all objects,

whether near or distant, send off only *divergent* rays, such a patient, with the ciliary muscle in a state of complete relaxation, cannot see distant objects. To do this, with the eye in this condition, he is obliged to place before the cornea a suitable double convex lens, which renders parallel rays *convergent*. We have already seen that the more convex a lens is, the less distant behind it is the point at which parallel rays are brought to a focus. Hence, a patient with Hypermetropia, to see distant objects without the aid of a convex lens, must cause the ciliary muscle to contract, and thus produce a greater degree of convexity of the crystalline lens. Such a patient, in looking at distant objects, is obliged to make a muscular effort on the part of the adjusting apparatus, while the normal eye can recognize distant objects without this effort; or, in other words, when the ciliary muscle is in a state of relaxation. As objects are brought nearer the eye, a still greater effort of the ciliary muscle is required, until finally, in endeavoring to read, for instance, the whole possible muscular power is expended. Such a patient, in using the eyes for near objects, is usually obliged to employ so much muscular effort, that a painful sense of fatigue is soon experienced. In some cases, there is a greater power in the ciliary muscle to increase the convexity of the lens than exists in the normal eye, which aids the patient in overcoming the difficulty in vision.

On the other hand, there are extreme cases in which the patients are unable to see distant objects, not only when the ciliary muscle is in a state of complete relaxation, and consequently the lens least convex, but even when the muscle is in its state of greatest convexity, from the utmost contraction of the ciliary muscle. In such an eye, the images of distant, as well as of near objects, are formed behind the retina. A patient in this condition, can see neither near nor distant objects distinctly. Such patients are in the habit of bringing objects near the eye, since the indistinctness relatively decreases with the increase in the size of the images on the retina, even though indistinct.

For these reasons, ophthalmologists were formerly misled, attributing the indistinctness of vision to an amaurotic condition of the eye.

By placing a minute aperture in a thin plate of metal as near the cornea as possible, diffused light is excluded, and objects are seen somewhat more distinctly. To produce the same effect, patients are in the habit of nearly closing the lids in the act of looking.

In typical cases of Hypermetropia, the cause of the imperfect vision depends upon an abnormal shortness of the antero-posterior diameter of the globe, which may be congenital or acquired. The retina is too near the cornea. By recalling the manner in which parallel and diverging rays of light are affected in passing through lenses of different degrees of convexity, you can readily understand how, in such cases, the images of distant objects, without an effort of the ciliary muscle, must be formed behind the retina.

Hypermetropia depends often on a undue flattening of the cornea and crystalline lens, from absorption of the fluids of the eye. The removal of the lens by accident, or in the operation for cataract, renders an eye hypermetropic. Certain diseases of the choroid, by infiltration and thickening of its substance, is said to produce Hypermetropia, by throwing the retina slightly forward towards the lens.

Hypermetropia has been observed as an apparent symptom of incipient atrophy of the optic nerve. It is often produced in an eye which has been long in disuse, as in certain cases of strabismus. From want of exercise, the ciliary muscle becomes weakened and unable to increase the convexity of the lens; the latter in turn, from constant traction of the Zonula of Zinn, becomes more and more flattened, till even parallel rays of light are brought to a focus behind the retina. On the other hand, Hypermetropia is very often the cause of strabismus. Although reasons for this last phenomenon have been suggested, a perfectly satisfactory explanation has not yet been found.

Hypermetropic patients are very liable to suffer a peculiar neuralgic pain in and around the eyes, after working even for a a short period upon near and fine objects. Such patients are often unable to pursue any occupation requiring constant use of the eyes. They soon experience a sense of fatigue, which at length becomes pain. Rest will cause this discomfort to sub-

side; only to return, however, on resuming the customary labor. Continued efforts soon produce not only pain but a decided congestion, with a peculiar irritable condition of the eyes, which renders any occupation almost impossible.

The treatment in cases of Hypermetropia consists in the careful observance of such habits of life, especially with children, as will tend to prevent undue exercise of the eyes, and in the use of suitable double convex lenses.

In slight cases, a correct diagnosis can only be made after a careful examination. It is impossible to know without this, whether a patient, in looking at a distance, sees objects with the ciliary muscle in a state of relaxation, as in the normal eye, or whether he sees them by making an effort with the muscle of accommodation. To decide this point, it is necessary usually to paralyze the ciliary muscle by means of atropine. If a drop of a solution of sulphate of atropia, gr. iv. to the ounce, be instilled upon the conjunctiva every fifteen minutes for two or three hours, the muscle will be completely paralyzed, and the lens will assume its least possible degree of convexity. A normal eye thus influenced by atropine, would readily distinguish distant objects. But in the hypermetropic eye, as we have seen, the rays from distant objects are brought to a focus behind the retina; consequently, such objects could not be seen distinctly. By placing before the eye a suitable convex lens, the rays are rendered converging, and on thus passing through the cornea and crystalline lens, are brought to a focus, not behind the retina, but on it. After the effects of the atropine have passed away, if the same lens be placed before the eye, distant objects can be seen without any effort on the part of the apparatus of accommodation. The eye thus provided with a lens, instead of being obliged to use a certain portion of its adjusting power, will, like the normal eye, see at a distance *without* muscular effort, and can reserve its whole power of adjustment for near objects.

Occasionally we meet with patients in whom one eye is myopic, and the other hypermetropic. In the case of the clergyman, whom a few of you recently saw, the myopia of one eye and the Hypermetropia of the other eye were very marked.

To recapitulate: in the normal eye the apparatus of accommodation can adjust the focus for objects at any distance, more than five inches from the cornea; but when the eye is accommodated for very distant objects, the ciliary muscle is in a state of perfect relaxation, and the lens reduced to its least degree of convexity. To this normal condition of the eye has been given the term Emmetropia—vision in due measure.

Of the abnormal conditions of the globe, we have, 1st, Brachymetropia—shortsightedness—in which the rays of light are brought to a focus *in front* of the retina, in consequence of the abnormal distance at which the latter is placed from the lens; 2d, the opposite of the condition just mentioned, in which the retina is too near the lens, in consequence of an abnormal shortening of the diameter of the eye. To this condition has been given the term of Hypermetropia—vision beyond normal measure, "oversightedness." The apparatus of accommodation may, in each of these cases, be perfectly normal. It should be remembered that the faculty of accommodation, properly speaking, is confined to the power of increasing or diminishing the convexity of the lens, which changes cause rays of light from objects at different distances to be brought to a focus at the same instance behind the lens. If the retina is situated either too far from the lens, as in shortsightedness, or too near the lens, as in Hypermetropia, a part of the power of adjustment is expended in moving the focus, in the first case, further from the lens, and in the second, towards the lens.

There are two abnormal changes in the apparatus of accommodation, the form of the eye remaining normal: 1st, Plesiopia—nearsightedness as we have already described, in which the lens can be rendered more convex, but cannot be sufficiently flattened. 2d, The opposite of this—Presbyopia (old)—farsightedness, in which the lens can be flattened sufficiently to see distant objects distinctly, although its convexity cannot be increased sufficiently for seeing near objects. Hence, as the power of accommodation is destroyed as regards near objects, it is necessary, in looking at such objects, for presbyopic patients to increase the refraction of the rays by the use of convex lenses; and in marked cases, it is necessary to employ strong lenses for

very near objects, and lenses of less convexity for objects which are moderately remote.

I am aware that I have attempted to express in a few words what requires much more space than we can now devote to this subject. If you will, however, carefully impress upon your minds a few of the important facts connected with the influence of convex and concave lenses on rays of light, and will also study the principles given in this and the past lectures, you will be able to examine and comprehend the nature of the cases which may fall under your observation.

On the Respiratory Function in Pneumonia: Report of Cases. By Dr. J. P. Ross, Attending Physician to the County Hospital.

The two following cases of Pneumonia are reported, not because there is anything very remarkable in them, but to show the importance of keeping up the respiratory function especially where a large portion of the lungs are involved in the disease; and secondly, the danger which may attend the administration of opium, from its effects in diminishing the respirations.

CASE I. DOUBLE-PNEUMONIA.

R. S. W——d, aged 23, brakeman on a railroad, sent for me, May 1st, 1859. He said, he was taken four days before with a chill, followed by headache, loss of appetite, occasional cough, and a dull pain in the right breast. A general examination revealed the skin moist; pulse, 100, full; tongue but slightly furred; bowels free from the action of a cathartic which had been administered the day before; there was no appetite and but little thirst. The patient was sitting up in bed, making but little complaint. On percussion, there was dullness over two-thirds of the right lung inferiorly, with bronchial respiration. Vocal resonance increased. There was slighter dullness and crepitation over left back inferiorly. The sputum was copious and rust-colored. The respirations were twenty per minute. Prescribed three grains of quinine and one-third of a grain of morphine every fourth hour.

May 2d. Patient very much as yesterday. In addition to the physical signs, dullness was found over lower and anterior portion of left lung, also bronchial respiration. The respirations were 21 per minute and somewhat labored. Urine scanty and high colored. Warm fomentations were ordered to the chest; the powders to be continued.

May 3d, 8 o'clock A. M. Was called in great haste, as patient was reported to be dying. His face was of a bronzed hue; the respirations were labored and catching; pulse could scarcely be felt, small and frequent; lips blue; the body was slightly convulsed; extremities cold, and the patient unconscious. The respiratory murmur was absent, with dullness on percussion over two-thirds of right and left lungs inferiorly; also, coarse crepitation over remaining portion. Ordered to be given immediately one ounce of brandy, hot bottles to the extremities, and hot fomentations to the chest, and wrote for the following:

℞ Ammon Carb.,
Camph. pulv., aa ℥ss.
Quiniæ sulph., gr. x. M. Ft. ch. No. x.

S. One powder to be given as soon as obtained, and to be repeated every third hour. And with the first and every other powder, to give one teaspoonful of the following:

℞	Strychinæ,	gr. i.
	Acid nitric, dil.,	℥i.
	Aquæ,	℥ii. M.

At 3 o'clock P. M., symptoms greatly improved; respirations 39 per minute, less labored and regular; pulse, 110, full; intellect clear; anxiety of countenance less; complexion florid.

May 4th. Patient rested well last night; doing well. Continue treatment.

May 5th. Crepitation is fully established over upper and middle portion of both lungs; skin moist; pulse, 91; bowels not moved for three days. Continue treatment, and in addition give three com. cath. pills at bedtime.

May 6th. Bowels moved; appetite returning; ate a piece of beafsteak for breakfast; chlorides in abundance in the urine, which was not tested before to-day. The strychnine mixture

to be discontinued, and the powders to be given every fourth hour.

May 7th. Found patient dressed and sitting up. The powder to be discontinued.

May 8th. The respiratory murmur normal over both lungs with but slight crepitation; patient dismissed, cured.

Remarks.—On my first visit, the inferior lobe of the right lung seemed to have progressed to the stage of hepatization, and the disease was spreading in the left lung, which became extensively involved by the morning of the third day. At this time probably two-thirds of both lungs were entirely disabled for the performance of their function. And in addition, there was congestion of the remaining portion of sound lung from venous blood seeking to be arterialized; and secondly, there was venous blood, narcotizing the brain and thus suspending the respiratory function, which afforded the only means of relief. Now what was the indication of treatment? Evidently to stimulate the respirations. For this purpose, stimulants were selected which would act more especially on the brain and nervous system. The success afforded in re-establishing the respirations and pulse, is revealed in the preceding history. After two doses of the remedies were administered, the respirations were thirty per minute; pulse, 110, full; intellect clear, and complexion florid. Nothing more was done but a continued use of the remedies to keep the patient breathing, and the recovery was most rapid.

How much the opium in the first prescription contributed to the alarming symptoms which occurred on the morning of the third day, I am unable to say; but I believe it had something to do with it; and my subsequent experience has taught me to be cautious in the use of this remedy in many cases of pneumonia. In all such cases, as above, where venous blood mingled in the general circulation, I believe opium to be a dangerous remedy.

CASE II.

Wm. B——, American; aged 60; laborer of light work in a bakery; sent for me, Nov. 20th, 1863. His wife states that he was attacked, three days before, with chills, alternating with

fever; slight cough; bloody sputa; restless, and at times delirious. Had taken a cathartic and several 3 gr. powders of quinine, but continued to grow worse to the present time. On examination, the skin was hot and dry; pulse, 116, full; tongue coated with thin, white fur; slight thirst; no appetite; delirious. Physical exploration revealed dullness, bronchial respiration and broncophony over the larger portion of the right lung. Ordered five grains of Dover powder, with $\frac{1}{10}$th of grain of tartar emetic, every four hours, and warm fomentations over the affected side.

Nov. 21st. Patient worse; very restless and delirious; slept but little since attacked. Ordered $\frac{1}{3}$ gr. morphine and 5 grs. camphor at bedtime, and the same quantity repeated every two hours until sleep is induced.

Nov. 22d. 6 o'clock A. M. Patient in a deplorable state. Countenance and prolabia blue; unconscious; breathing irregular and jerking; pulse hardly perceptible at the wrist; deglutition impossible. No sleep had been induced: five of the powders had been taken. Ordered hot turpentine stupes to chest and abdomen, mustard to the feet and legs, and administered ten grains of quinine and four ounces of whisky per rectum. In twenty minutes patient able to swallow, with some difficulty, an occasional teaspoonful of whisky and water. Wrote for the following: Carb. ammoniæ and pulv. camphor, each 30 grains; quinine, 10 grains,—made into ten powders, one to be given every two hours. With the first, and every other powder, to give one teaspoonful of a solution containing $\frac{1}{16}$th gr. of strychnia.

1 o'clock P. M. Capillary circulation, pulse and respirations much improved. Two powders and one dose of the strychnia had been administered. Ordered an interval of three hours to elapse between the powders, and six hours between the doses of strychnia. Beef-tea and milk-punch every hour alternately.

Nov. 23d. Delirium continues; pulse and respirations much as when last visited. Bronchial respiration and dullness over whole of right lung; continue treatment.

Nov. 24th. General symptoms improved. Crepitation returning over affected side; expectoration more copious.

Nov. 25th. Patient rational; bowels relaxed with pain. Omit the powders, and continue the strychnia mixture with ten drops of tinct. opii with each dose. From this date convalescence progressed steadily and rapidly. On the 28th, medical treatment was discontinued, and the patient dismissed, cured.

Remarks.—The alarming symptoms which presented on the morning of the 22d threatened death, as in the preceding case, by asphyxia. This was revealed by the blueness of the prolabia and skin, and the irregular and jerking respirations; and the indications for treatment were precisely the same in both cases, namely, to stimulate the respirations.

It is stated by eminent authority that pneumonia kills by asthenia or exhaustion and not by apnœa. This is plainly stated in a recently published clinical lecture on pneumonia by Dr. Flint. From my own observations I am induced to believe this rule (if such it is) is subject to a great many exceptions, of which the above are cases. Indeed, I believe one of the great dangers of this disease is the failure of the lungs to sufficiently decarbonize and oxygenate the blood. Nature hangs out the sign of this want in the bronzed or mahogany hue of the complexion. Hence, attention to the respiratory function should particularly engage the attention of the medical practitioner throughout the whole course of the disease. Recognising the liability to asphyxia, it follows that great care should be had in administering opium, especially where a large portion of the lung tissue is disabled by the disease; for opium, by lessening the frequency of the respirations, and the disease lessening the oxygenating surface, the remedy and disease combine to precipitate the patient into an alarming state of asphyxia. This I conceive to have been the result in the cases reported above, and my experience induces me to be more cautious in the use of this drug. Nevertheless, the treatment of pneumonia with large doses of opium has good authority to recommend it. But if this mode of treatment has either science or experience to recommend it, I have failed to make the discovery.

Cases Reported to the Chicago Medical Society. By Dr. CHARLES G. SMITH.

I. HÆMATURIA IN A NEW-BORN CHILD.

Mrs. N—— was delivered, after a somewhat protracted and severe labor, on the 20th ult., of a large and fine looking male child. The head came down well into the pelvis, but after three or four hours of very severe pains, did not advance, and I used the forceps, putting a speedy end to the labor, and without any apparent injury to the child. On the evening of the 23d, however, not quite forty-eight hours after birth, the nurse noticed that his urine had tinged his napkin a little red, and in the middle of the night, a passage of urine looked decidedly red and bloody. On the morning of the 24th early, I was called to see what had just passed from his urethra, and it seemed almost pure blood, and there was a large amount of it. These passages, perfectly bloody in appearance, continued all day on the 24th and 25th, at intervals of three or four hours, but on the morning of the 26th, the red color began to fade out, and by the evening of the same day, the urine had returned to the natural color, and the child seemed all right again. Sometimes there were small clots passed, and the color during the height of the attack was always of a florid red.

In hæmaturia, it is always difficult to locate the seat of the hemorrhage, and particularly so, in cases of this sort, as it is almost impossible to get urine enough to subject it to any careful analysis. When the hemorrhage is from the ultimate structure of the kidney, we can generally find blood-casts of the uriniferous tubes; and when from the pelvis of the kidney, we can find scales of the renal epithelium, and the blood has not the marked redness which it has when the hemorrhage occurs farther down the passages of the urinary canal. I think it probable, from the very marked redness of the urine in this case, and the frequent occurrence of blood clots in what was passed, that the hemorrhage was mostly from the bladder itself.

The treatment was simply this: With a view of diverting the blood from the central organs to the surface of the body, I had

the child put into a bath of water as hot as it could well bear, and afterwards applied mustard poultices to the back, till the skin was well reddened. Internally, I gave ⅛ gr. of gallic acid in a little syrup and water, every three hours.

I have brought this case to the notice of the Society, because I had never seen one like it before, and because it seemed to me rather an anomalous one. I find nothing of the kind reported in the text-books or journals, nor can I hear of any in the experience of those of my medical colleagues to whom I have mentioned it, with one exception only; my friend, Dr. Ross, has seen one case of the kind, which ultimately recovered under a somewhat similar treatment.

II. DYSPNŒA; BRONCHIAL SPASM, SIMULATING CROUP.

I was called on the 5th ult. to see a little patient of mine, a boy, five years old, who was said to have a very severe and dangerous choking. I was detained some time, and when I arrived at the house, I found that he had been visited by a neighboring physician, who had pronounced the most unfavorable opinion of him, and had gone away without waiting to see me.

I found the patient in a most critical condition. He was black in the face, throwing his arms wildly about, and making the most frantic efforts to breathe, without being able to get any air into the lungs, and his death seemed very near. As well as I could get at the history and present condition of the case, it seemed certain that the child was suffering from croup, and unless air was admitted into the lungs in some way, he must die very soon. As I had no instrument with me, and desired some assistance and counsel in the matter, I sent for one of the surgeons in the neighborhood. But he could not be found, and my friend, Dr. Ross, was brought in his stead. While the messenger was gone, however, the trouble in breathing seemed a little less, and the color of the lips lost a little of its dusky hue, but they did not become quite red. I noticed, too, that when the boy spoke, which he did now for the first time, not having the power and opportunity before, in his struggle for breath, that his voice was perfectly clear. This threw a new

light on the case, and made apparent that there was a spasmodic element in it, and that the larynx itself was not physically and permanently obstructed. There was not, however, any general relaxation or breaking up of the spasm, and when Dr. Ross arrived, the boy seemed about as badly off as ever. It was the opinion of this gentleman, as it had been my own, on first seeing the patient, that suffocation was imminent, and that the child was dying from croup. This was also the opinion of Dr. Baxter, who saw the child soon after, and would have been the opinion of almost any medical man, I think, on first seeing the case. By watching carefully, however, and by the use of anti-spasmodic remedies, we had the pleasure of seeing the child return in a few hours to health again, from a situation which did not seem many minutes removed from death.

The treatment was sedative and anti-spasmodic. In the first place, he was put into a warm bath, then warm fomentations were applied to the chest and leeches to the throat. He took syrup of ipecac. and hive syrup in large doses, without the effect of producing vomiting. Afterwards, he took assafœtida by injection and by the mouth, and this seemed to produce a marked effect on the spasm. He continued to take it all night in alternation with small doses of bromide of potassium, and inhaled chloroform during the most severe periods of the paroxysm. He gradually improved during the night, and was quite well on the 6th, the next morning after his attack.

I have brought up this case to show an interesting point in diagnosis, and to show what possibility there is that a case of this sort might be tracheotomized and claimed as a successful case of that operation in a dangerous and otherwise fatal case of croup. This boy was a very hearty and robust subject, and would undoubtedly have recovered from any operation of the kind. He had had a slight bronchitis for about twenty-four hours previous to this attack, but so slight, that little attention was paid to it. The attack was very sudden and very violent. It may, perhaps, occur to some of you, that it resembled laryngismus stridulus more than anything else, but there was an absence of the crowing inspirations, convulsive movements and other symptoms of that disease. As I said before, it was, at

first sight, just like a case of croup, and it was the clearness of the voice which indicated that the trouble was not in the laryngeal structures, but rather in the bronchial tubes, extending, probably, to their minute ramifications. Acting on that supposition, the case was brought to a favorable termination, without resorting to the disagreeable and painful operation of tracheotomy.

PROCEEDINGS OF MEDICAL SOCIETIES.

THE CHICAGO MEDICAL SOCIETY.

At the last meeting of this society, Dr. Ross presented, as pathological specimens, two kidneys, smaller than normal, having an average weight of 3¾ ounces each. Their surface was smooth, a portion of which appeared dark and congested. On peeling off the capsule, a portion of the renal tissue adhered to it, the texture of the kidney being softened. The venous vascularity was marked and irregular, presenting a mottled appearance. On a section, the cortical substance was diminished, not averaging over 3-5ths of an inch in thickness. The pyramids were distinct with a plain limiting line.

The Dr. stated that these were fine specimens of the *mottled fatty kidney*. The patient from whom they had been taken, had died comatose, in the County Hospital, March 1st. He had been admitted into the Hospital three weeks before, in the second week of his illness, with the usual marks of typhus fever. The marked symptoms were those of low fever, dry skin, frequent pulse, dry tongue, sordes, rash, constipation and delirium. There had been no dropsy, and no convulsions; evidently the affection of the kidneys had come on as a complication. How long they had been the seat of disease he did not know, there having been no symptoms directing attention to the kidneys; the urinary secretion had not been tested, but as the patient, previous to his sickness, had been in robust health, it is almost certain they had become affected sometime during the course of the fever. The specimens were interesting as showing the amount of fatty change which had developed in so short a time. A case is

reported by Dr. Johnson in his work on the kidney, which came on during convalescence from typhus fever, which run its entire course in four weeks, to a fatal termination. The post mortem appearances of the kidneys are described as somewhat similar to the specimens presented by Dr. Ross, except the degeneration was probably much more extensive in the case of Dr. Johnson.

Dr. Ross also exhibited two kidneys taken from a phthisical patient brought to the Hospital in a moribund condition. The specimens were characterized by the absence of the line of demarkation between the cortical substance and the pyramids. The kidneys were slightly hypertrophied and softened, and presented evidences of fatty degeneration. In one of the specimens there was a large cyst filled with serum and urine.

A very interesting and quite rare case of malarial disease was reported by Dr. S. Wickersham. A boy, eight years of age, usually enjoying perfect health, had suffered for a week with daily attacks of torticollis. The attacks commenced about eleven o'clock A. M., and continued three or four hours, the head being drawn gradually to the left side, till it nearly reached the shoulder. The use of quinine for a few days entirely removed the affection. Two years ago, and again a year ago, the patient suffered every other day from similar attacks.

Dr. Charles G. Smith, reported a case of hæmaturia and one of dyspnœa, which will be found detailed in full on another page.

Dr. Holmes reported a ease of congenial opacity of the right cornea in an infant a month old. The family physician, Prof. Davis, and friends of the infant, observed the defect at birth, and stated that there had been no symptoms of inflammation, nor even of congestion of the eye. Nearly the whole cornea was densely opaque, there being a narrow rim at its upper and inner portion, which was quite translucent. The globe, as well as the cornea, was normal size, which is usually not the case where this deformity has been observed. The condition of the cornea seems to depend upon arrested development, and might possibly be considered as analogous to the opacity of the lens in congenital cataract. There is less probability that the opacity is the result of fœtal corneitis. Cases like the above are exceedingly rare.

Members of the society might attach whatever importance they chose to the following fact: In the third month of pregnancy, the mother had been much frightened by being informed that the right eye of one of her children had been "put out." Upon examining the child's eye, she found a piece of white tissue paper adhering to the cornea, over which the lids passed freely in winking. The children had been playing with a sheet of tissue paper attached to the end of a stick. By accident, the eye was struck by this paper, the corner of which coming in contact with the globe, was torn off and left adhering to the cornea. The mother stated that the eye, previous to the removal of the paper, appeared almost precisely like that of her infant.

An interesting discussion upon the subject of cholera followed the report of these cases. At some future time, we shall endeavor to present the readers of the JOURNAL with an abstract of what is now known regarding the nature and treatment of this disease. We would now merely commend two suggestions as worthy of consideration. Instead of chloroform to overcome spasm and increase the amount of blood in the brain, the attention of the society was called to the use of nitrous oxide gas. We might expect this agent not only to relieve spasm and vomiting, but also to supply oxygen freely to the blood. From the known effects of this gas in syncope, there are reasons for believing it may be of great benefit in nearly every stage of cholera.

A member described the following method of securing the action of mustard externally, in cases of cholera:

A dozen porous bricks, previously placed in boiling water till they have become thoroughly heated and saturated with moisture, should be covered with pulverized mustard of the best quality, and arranged on each side of the patient from head to foot. The patient should be then enveloped in thick blankets. The steam from the bricks carrying with it the active principle of the mustard, produces a most decided impression upon the whole surface of the skin. There is scarcely any method of applying mustard which will produce so rapid and thorough stimulation of the surface as this.

ROCK RIVER UNION MEDICAL SOCIETY.

The Rock River Union Medical Society held its semi-annual meeting at Dixon, Ill., Dec. 13th, 1865.

In absence of the President and Vice-President, Dr. O. Everett, of Dixon, was elected to the chair.

The minutes of the last meeting were read and approved.

Dr. Henry E. Paine and Dr. I. S. Williams, of Dixon, were admitted to membership.

Dr. Phillips, of Dixon, presented a specimen of granular disease of the kidney, with remarks.

Dr. Paine, of Dixon, presented a specimen of congenital imperforate anus, with the following history:

Mrs. W. gave birth to a male child, May 5, 1865, primipara. The child was born before the physician in attendance arrived, consequently, the body of the infant was not inspected, and the real condition of the child was unknown until May 6th. When seen, May 6th, the child presented a good development. The skin was jaundiced; he had been fretful for twenty-four hours previous; had urinated frequently; nursed very little. On examining the fundament, I found that no anus existed. The tissues were hard, and as solid at the point where the rectum should have terminated as at any portion of the gluteal region; therefore, I believed that the rectum terminated high up, and that, in order to operate successfully, a very deep incision and dissection would be necessary, and that the prognosis was bad, both as far as the operation and the ultimate result were concerned. While examining the case, and placing the subject in proper position for the performance of the operation, the child expelled its urine, which was tinged with meconium. The existence of a communication between the rectum and urinary organs was thus demonstrated, and though the character of the channel could not be comprehended, and the nature of the deformity was made more complex, yet I determined to make an effort to reach the intestine and relieve the parts. The operation was performed in the usual manner, and an incision carried one and a half inches into the pelvis; little blood was lost; the intestine was not reached, and after a careful and patient explo-

ration, further interference was desisted from. The child died two days after, and I made a post mortem examination. The abdomen was greatly enlarged and tympanitic. On opening the abdominal cavity, a large amount of serum was found, omentum congested, intestines distended with flatus. On removing the urinary organs, kidneys and bladder, together with the rectum, the following condition of organs was found: The bladder was empty, and both ureters were greatly distended with urine, and especially the left, which was as large as a pipe-stem, and filled with urine. The left kidney had undergone cystic degeneration, and was diminished in size to that of a body ¼ of an inch long by ⅛ inch wide. The cyst contained about six drachms of fluid. The right kidney was apparently healthy. On tracing the rectum downward, I found it terminated in a sinus, whose calibre was sufficient to allow a large straw to be introduced; it was 1¼ inches long, and communicated with the urethra just anterior to the sphincter muscle of the bladder.

Several interesting cases of resection were reported by Dr. Abbott and Dr. Paine, of Dixon, performed in the army.

Dr. Abbott reported a case of gall-stones, in an old man supposed to have cancer of the stomach, as there was regurgitation of food after eating; but a post mortem revealed the presence of eight or ten gall-stones in a cyst formed by an enlarged uriniferous tube. The duodenum was contracted from deposit of calcareous matter in the coats of the bowel.

On motion of Dr. Phillips, a committee was appointed to prepare a report to be published in the Dixon, Morrison and Sterling papers, preparatory to the anticipated appearance of cholera in our midst the coming season, suggestive of measures both hygienic and sanitary calculated to prevent the spread of the disease.

The Chair appointed as said committee: Drs. Phillips and Paine, of Dixon; Dr. Hagey, of Sterling; and Drs. Nowlan and Donaldson, of Morrison.

Drs. Abbott and Donaldson were appointed delegates to the State Medical Society.

Drs. Everett and Winn, delegates to the National Medical Society.

The Society voted that the Secretary forward these minutes to both medical journals of Chicago for publication.

Adjourned to meet at Morrison, the second Wednesday in June next. OLIVER EVERETT, *President.*

H. C. DONALDSON, *Secretary.*

SELECTED ARTICLES.

Last Illness of Valentine Mott, M. D.

The following account of the last illness of Valentine Mott, M. D., presented by Dr. Austin Flint to the N. Y. Academy of Medicine, will be read with interest:

MR. PRESIDENT,—In compliance with a request made at the Special Meeting of the Academy, held on the occasion of the death of the late Valentine Mott, I have the honor to submit a succinct report of his last illness. In making this report, I shall not presume to encroach upon the duty and privilege, belonging more appropriately to others, of rehearsing the surgical achievements which will render memorable in all time the name of Valentine Mott; or of pronouncing eulogiums for private virtues, which made him not less worthy of admiration as a man than as an illustrious member of our profession.

For several months preceding his death, the family and friends of Dr. Mott had observed a manifest decline in his physical vigor. He had pain (supposed to be neuralgic) in the back and limbs. The pain was at times exceedingly severe. Under a belief that the neuralgia was due to malaria, he took, for a time, arsenic. Cupping, with and without scarification, was also resorted to. I am unable to give further details with respect to these and other measures of treatment prior to his last illness. There was no evidence of failure as regards his mental faculties. A short time only before his last illness, I was associated with him in an important case, in which, from his intimate relations with the patient, he had consented to assume the responsibility of the attending physician. In the management of this case, the accuracy and completeness with which he carried in his mind the surgical events, and his attention to minute therapeutical details, impressed me strongly. The recent tragic events which

produced such a profound sensation throughout our country—I refer to the assassination of our late President—occurred a few days prior to his last illness. He was very deeply affected by this event; so much so, that the members of his family entertain a conviction that it contributed to his illness. His utterances in delirium frequently related to circumstances connected with this event. It is to be added, that he had repeatedly had attacks of intermitting fever.

On Saturday, April 22d, without any unusual exertion, exposure, or apparent exciting cause of any kind, he was seized with a severe chill at two o'clock P. M. The chill lasted an hour. It was accompanied with great prostration and intense lumbar pain. During its continuance he was seen by Dr. Vanderpoel. It was followed by intense febrile movement. I saw him at 5½ o'clock P. M. At this time the skin was extremely hot, the pulse frequent, the intense lumbar pain continued, and he was greatly prostrated. He was then lying upon a sofa in his office. It was necessary to carry him up stairs to his bed-chamber. This was done, and a quarter of a grain of the sulphate of morphine given. At 7 P. M. he began to perspire. At 10½ P. M. he had perspired freely, and the febrile movement had ceased. He appeared to have passed through an unusually severe paroxysm of intermitting fever. The lumbar pain did not continue, but he now, for the first time, complained of intense pain in the left leg, the pain being referred especially to the calf and ankle. A suppository containing half a grain of the morphine was given.

April 23. I was requested to see him at 6 A. M. He had passed a wretched night, from the continuance of intense pain in the left leg. A quarter of a grain of the sulphate of morphine was given by the mouth. Relief of the pain followed, and, during this day, he slept much of the time in short naps. Fearful of a repetition of the paroxysm of fever, two grains of the sulphate of quinine were given hourly, from 11 A. M. to 5 P. M., and, during the night, the same doses were continued at intervals of three hours. During this day he was free from febrile movement. At evening he seemed quite comfortable. He had taken during the day, beef tea, chicken soup, and wine whey, pretty freely. At this time the left leg presented no morbid appearance, but there was notable tenderness over the calf and ankle.

April 24. He had passed a comfortable night, but he suffered great pain in the left leg whenever it was moved. He appeared to doze most of the day, but complained of getting no sleep. Swelling and redness of the ankle and foot were observed on

this day, and hardness over the calf of the leg. The heat of the limb was considerably increased. At evening some vesication had occurred over both ankles. The pulse on this day became quite irregular and feeble. He had some deafness and tinnitus, attributable to the quinine. He was disinclined to take nourishment, and at times complained of nausea. No dejection had occurred since the attack. The urine was abundant. Auscultation of the heart revealed no murmur. The heart-sounds were feeble, especially the first sound. The apex-beat was not appreciable; but, judging of its situation by the maximum of intensity of the first sound, and determining the area of præcordial dullness by percussion, there appeared to be no enlargement of the heart. During this day the sulphate of quinine was continued in two-grain doses, repeated every two hours until evening. There was no recurrence of the paroxysms of fever. A little wine and brandy, with nourishment, were given on this day. He was reluctant to take either food or stimulants. In the afternoon an eighth of a grain of the sulphate of morphine was given. There was considerable tremulousness of the muscles of the jaw, and of the hands whenever he made any voluntary movements. Some incoherency was observed on this day. During this day, as on the previous day, he was seen repeatedly by Dr. Vanderpoel and myself, together and in alternation.

April 25. He had passed a pretty comfortable night, sleeping, at best, half of the night. Brandy and nourishment had been given sparingly, on account of his great repugnance to both. The pulse continued quite irregular. The tongue on this day became dry. The skin was warm. The left leg presented increase of swelling over the ankle and foot, and of hardness over the calf. The blisters over the ankles had enlarged, and presented a dark or purplish appearance. He had a free dejection, the first since the attack. There was great tremulousness of the hands with voluntary movements. Frequent tremulousness of the jaw continued. He still took food and stimulants very reluctantly. During this day there was considerable incoherency. The urine examined on this day showed a trace of albumen. Its reaction was acid; sp. gr. 1022: urates were deposited in abundance. With the microscope nothing was discovered in the sediment but amorphous urates.

Up to this date only Dr. Vanderpoel and myself were associated in attendance. Dr. Alexander B. Mott returned home from the army on this date. On examination of the affected lower limb, Dr. Mott ascertained diminished force of pulsation of the femoral artery, as compared with the pulsation of the corresponding artery of the opposite limb. In the afternoon there was

constant delirium, manifested by talking incoherently without cessation, imagining he was away from home, desiring to get up, the delirium being like that in typhus and typhoid fever. An eighth of a grain of the sulphate of morphine was given without any tranquilizing effect, and afterwards a quarter of a grain.

At 8½ P. M. he was seen in consultation by Dr. Alexander H. Stevens and Dr. Joseph M. Smith, and at 10 P. M. by Dr. Metcalfe. The restless, talkative delirium had ceased. He was somnolent, but easily aroused, recognizing persons who addressed him, and replying to questions, but relapsing into somnolency directly after being aroused. The skin was warm and moist; the pulse was frequent, feeble, and irregular. The rythm of the respirations was disturbed, breathing being suspended at intervals for several seconds. The left leg presented, in addition to the appearances already stated, a circumscribed dark patch on the dorsal aspect of the foot. The slightest movement of this limb now, as before, excited expressions of pain. The gentlemen who saw him in consultation with Dr. Vanderpoel and myself, advised only the continuance of alcoholic stimulants and nourishment.

April 26. During the greater part of the preceding night I was in attendance. He was in a semi-comatose state; the respirations and pulse were irregular; deglutition was unaffected, but food and stimulants were given with considerable difficulty on account of his repugnance to them. He remained during the day in this condition. The left leg presented increased vesication over the ankles, and enlargement of the dark patch on the dorsal aspect of the foot near the toes. With considerable difficulty food and stimulants were given at short intervals during the day. He became more and more lethargic; the pulse became progressively more feeble and irregular; the temperature of the skin diminished, and it was covered with clammy perspiration; deglutition became difficult, and death took place at 1 P. M.

The duration of the illness was four days and eight hours.

A review of this report, which, I should state, is essentially a transcript of memoranda noted daily during the illness, shows the following order of events:

First. A paroxysm, having all the characters of a paroxysm of intermittent fever, the cold stage lasting an hour, the hot stage lasting four hours, and the sweating stage followed by complete asphyxia. The paroxysm severe, and accompanied by great prostration.

Second. Severe pain in the left leg, following the febrile paroxysm, the pain accompanied by great tenderness. On the

third day, the occurrence of swelling, redness, increased heat and vesication. On the fourth day, increase of vesication, and the appearance of a dark circumscribed patch on the dorsal aspect of the foot. And, on the fifth day, increase of vesication and enlargement of the dark circumscribed patch. In conjunction with these local appearances, diminished force of pulsation in the femoral artery.

Third. Great prostration remaining after the febrile paroxysm. On the third day, incoherency; on the fourth day, typhoid delirium; and, on the fifth day, gradually developed coma, continuing and increasing until death—the mode of dying being chiefly by asthenia, notwithstanding the comatose condition and the disturbance of the rythm of respiration.

As regards the nature of the illness, or the pathological conditions involved, the following conclusions were drawn from the events of the clinical history: The primary affection was intermitting fever—a recurrence of the paroxysm being probably prevented by the use of quinine. The affection of the leg tended rapidly to gangrene, and there was reason to suspect the existence of embolism. The typhoid phenomena, occurring after the febrile paroxysm and during the development of the affection of the leg, would render the name *typho-malarial fever* appropriate; considering this name, in this instance, as denoting the existence of the typhoid state, not typhoid fever, with a malarial fever. The explanation of the fatal termination by exhaustion, after so short an illness, is to be found in the severity of the febrile paroxysm and the local affection, taken in connection with the advanced age of the patient, and the recent deterioration of the constitutional vigor.

These pathological views are believed to represent fairly the opinions of those who were associated in consultation; but it is proper to state that I have not been able to submit to them this report before presenting it to the Academy.—*N. Y. Medical Journal*, Aug., 1865.

SURGERY.

Endoscopy.—Certainly one of the most ingenious applications of the art of direct exploration and physical examination of the condition of the blind passages and internal organs of the human body, which modern professional zeal and enterprise has discovered, is that known by the name of Endoscopy. It boldly attempts and succeeds in accomplishing the direct, ocular examination of narrow canals and obscure cavities which until

now have never admitted during life the light of day, and which would seem to most persons, *a priori*, to be entirely beyond the study of the most inquisitive research applied in this way. But modern medical exploration has not yet reached its limit, it would seem, and by the method of which we are speaking it now reveals the secret lacunæ of the urethra, and even the interior of the bladder itself, to the most thorough and exact ocular scrutiny. As yet the practice of this method may be said to be in its infancy merely; it is in the hands of but few practitioners, but the results already attained are such as to warrant the hope that it will furnish the means of rational and successful treatment in some most serious complaints, which have hitherto been to a very great extent treated blindly and rudely.

Endoscopy is an art rather than a science, inasmuch as it consists merely in a method of exposing, by means of ingenious mechanism, to visual inspection and study, hidden regions hitherto unexplored in this way. To the late lamented Dr. John D. Fisher, of this city, belongs the credit of having first devised an apparatus for this purpose, identical in principle and similar in structure to that which is employed with so much success in France at the present time by Desormeaux, and by Dr. Cruise in Dublin. So long ago as 1824, Dr. Fisher contrived his instrument, but it does not seem in his hands to have attracted the attention it deserved, or to have accomplished the results of which it is plainly capable. At the present time, endoscopy is in active employment by both of the gentlemen who have taken it up since the decease of Dr. Fisher. Dr. Cruise's instrument is that which has produced the results with which we are best acquainted. and its structure is quite simple and easily understood.

The apparatus consists of a lantern for the purpose of illumination, and a system of tubes and instruments by which its light is made available. Dr. Cruise employs the flat flame of a petroleum lamp, placed with the edge towards the exploring tube. This lamp is enclosed in a wooden case, to avoid the inconvenience of the heat and the diffused light, with an opening opposite the flame on one side. In this opening a strong condensing lens is set, through which the light passes into the eye tube. This is a short tube, something like the tube of a microscope, but shorter, which is screwed to the side of the lantern opposite the opening. It is so jointed to the lantern, to which it is attached by its side, that it can be freely rotated, but in use it is generally kept in a horizontal position. The condensed light from the lantern, having entered the eye tube

through the lateral opening, falls on a perforated mirror set in this tube at an angle of 45°, by which the ray is reflected and thrown away from the eye of the observer along the axis of the tube. A small central opening in the mirror enables the eye of the observer placed behind to follow the light to the deepest recesses to which it may be directed. For examination of the urethra, a tube, the narrow portion of which is of the size of a large catheter, and six inches long, is fitted to the end of the eye-tube. Just before junction with the eye-tube it gradually expands, so as to give it a diameter large enough for the practical application of the instrument. When this tube is adjusted in the manner described, and introduced into the urethra, the effect is most marvelous. The whole canal can be examined most carefully, and the slightest local affection of whatever kind can be made out with perfect distinctness. In his interesting account of this instrument and its uses, Dr. Cruise gives colored plates showing the appearances of this canal, both diseased and healthy, even as far back as the prostatic portion. Having obtained a fair view of any morbid condition of the urethra, Dr. Cruise proceeds to apply the requisite treatment directly to the part affected. This is done by means of an opening on one side of the dilated portion of the urethral tube, by which he is able to introduce instruments for the purpose as far as may be necessary. He thus avoids the necessity of applying remedies in the usual way, by which the whole urethra is subjected to the stimulus of an injection, or exposed to the danger of laceration in a case of narrow and obstinate stricture. In chronic blennorrhagia, for instance, he applies his caustic directly to the granular surface of the membranous portion of the urethra with as much accuracy as the oculist does to the granulations of an old conjunctivitis. He is able also to watch the effect of his treatment from day to day, and is thus enabled to graduate the strength of his applications to the actual condition of the affected part, instead of trusting to the uncertain guide of the sensations or statements of the patient. Surely this is a great advance in practical surgery!

Another class of affections which the endoscope has furnished the means for successfully treating is stricture of the urethra. The most obstinate resistance on the part of these sometimes impervious obstructions of this canal have yielded to the insinuating power of a fine bougie passed under the eye of the observer. Dr. Cruise mentions several instances of this. In one, M. Civiale had tried for twenty-eight days to pass a sound through the stricture without success. At the second attempt, M. Desormeaux, by the aid of the endoscope, passed a fine

bougie through the constriction, and from that time the case went on favorably. In another case, of a patient 73 years old, repeated attempts by Dr. Cruise to pass a bougie failed, until he employed the endoscope, by which his efforts were finally crowned with success, and gradual dilatation was employed until the canal was enlarged to its full dimensions. By means of this instrument, also, internal urethrotomy is disarmed of most of its dangers, the knife being applied directly to the part requiring division under the direct observation of the operator. This operation has been very successful in these cases in the hands of M. Desormeaux, aud it will undoubtedly often obviate the necessity of perineal section or of puncture of the bladder.

But the use of the endoscope is not limited to the canal which evacuates the bladder—it is made to explore that organ itself. By means of a catheter with a short curve, furnished with an opening on its convex surface, supplied with a glass window, the light from the lantern is thrown directly into the bladder. In this way Dr. Cruise has succeeded in perfectly examining the prostatic portion, the fundus and greater part of the posterior surface of this organ. In one instance of inflamed bladder, he made the condition of the lining membrane as visible to another observer as, to use his own words, "the conjunctiva of an inflamed eye." The *experimentum crucis* to which Dr. Cruise was subjected by his colleague, Dr. McDonnell, would seem to settle the question of the capabilities of the instrument for the purposes of accurate examination. This gentleman placed in the bladder of a dead body several articles, of the nature of which Dr. Cruise was not previously informed. By means of the endoscope he was enabled to make them out to be a Minie bullet, a brass screw with a milled head, and a mass of plaster of paris! Surely accuracy of diagnosis can go no farther.

At the present day, when specialties are occupying the attention of so many industrious members of the medical profession, the endoscope promises to be fruitful of valuable results. Its use must require a certain amount of patience and dexterity which can hardly be looked for from every general practitioner. With the laryngoscope it cannot fail to reward the labors of those who, by a natural gift or by a special cultivation of the capabilities of the instrument, will be enabled to substitute positive knowledge for conjecture, and direct application of remedies for blind treatment, in the management of a class of cases, many of which are among the most serious which the surgeon is called upon to treat.—*Boston Med. and Surg. Jour.* December, 1865.

EDITORIAL CORRESPONDENCE.

The political atmosphere by which one is surrounded at the Capitol is not favorable for the composition of a communication relating only to medical matters, and of interest to the medical profession. We have endeavored, however, to collect some facts at the headquarters of the medical department of the army, and from the last Report of the Surgeon General, which will, we trust, be of interest to our readers.

In no other department of the army has retrenchment been more rapid and judicious than in this. On January 1st, 1865, there were 201 general hospitals open, with a capacity of 136,000 beds. There now remain but 9 general hospitals, with only about 1000 patients in them, and 247 post hospitals, containing 3300 patients. The large amount of medical and hospital supplies which the reduction of the army has rendered no longer necessary, have been or are being sold, and in some cases the articles sell for more than their cost price to the Government. All of the river hospital boats have been turned over to the Quartermaster's Department. Of the 547 surgeons and assistant surgeons of volunteers, appointed since April, 1861, but 28 of the former and 19 of the latter are still in the service; and of the 5523 acting assistant-surgeons, only 246 are now in service. 264 hospital chaplains were appointed during the war, and of these only about 20 remain in commission.

During the war, 34 officers of the medical staff have been killed or died of wounds received in battle, 24 wounded, and 188 have died of accident or disease contracted in the service. 1 died in a rebel prison, and 6 of yellow fever. A complete record may increase this number. Surely no other profession or class of men have brought greater sacrifices to their country's altar than have the medical profession of this country, as is shown by the records of the medical department of the army and navy.

The number of sick and wounded white troops treated in general hospitals alone, from 1861 to July, 1865, was 1,057,423, and the mortality rate of these was 8 per cent. But we need

scarcely enter upon the statistics of any part of the medical department, for we have not space for even a very general reference to them, and the profession must be content to wait until the statistics can be completed, and, by the use of all available means, be made reliable.

The materials for the medical and surgical history of the late rebellion are, fortunately, commensurate with the magnitude of the struggle itself; and the zeal, energy and capacity with which the crude matter is being worked up, justifies the prediction, that it will prove as great a success as was the war for the salvation of the Union. No medical man who visits the divisions of the Surgeon General's office, in which this vast work is going on, can, with good reason, offer objections to the measures adopted by the Surgeon General to prevent intrenchments upon that which belongs to the Government, but which will be given to the profession so soon as it can be prepared with that accuracy and minuteness that is necessary to render such a history of value. It is impossible for any man or set of men to prepare a medical and surgical history of the late war so well as can be done under the auspices of the Government, even were the whole records of the medical department thrown open to all who might desire to examine them. The collection of facts, and the perfecting of the history of individual cases, and the preparation of statistics that shall be reliable, requires more labor and expense than any private individual could possibly afford; and it is not at all probable that a work, complete and reliable in all respects, could ever be made from any other source than that from which it is to come. We must be allowed to state, as a farther argument upon this point, that it is not from the records of the medical department alone during the war that data are to be gained, but the records of the Adjutant General's office are consulted in many cases to test the correctness of medical reports; the reports of pension surgeons and of artificial limb makers are consulted, and furnish valuable information as to the results of many of the most interesting cases, and from these reports the address of the men and the pension surgeons are obtained, and when the history of certain cases cannot be completed otherwise, letters of inquiry are addressed

to one or the other, or both, and in this manner all the desired information is obtained.

The Army Medical and Surgical Museum is the great object of interest to the medical man here. It furnishes another source of indisputable facts for the medical and surgical history, and is an institution of which the profession of the country should be proud. The surgical specimens now number over 5000, embracing every variety of wounds and injuries, and a history of each case is placed on record. The number of medical specimens is over 800, carefully preserved and ingeniously mounted, so as to be seen to the best possible advantage. A descriptive catalogue of specimens is in course of preparation, and will soon be issued; this will greatly aid visitors, as a concise and satisfactory history of each case from which the specimen was obtained, is given. The general classifications of surgical specimens are 25, with several subdivisions of each. The Museum is open to all, and has become an object of interest not only to the medical profession but to the public generally.

Besides the means already referred to as available for a medical history of the war, we should not fail to mention the interest added to the work by the microscope. Under the supervision of Brvt. Maj. J. J. Woodward, Asst. Surg. U. S. A., micro-photography has been brought to such a state of perfection as to be available for the illustration of micro-pathological anatomy. The microscopical series in the Army Medical Museum is already the largest and best micro-pathological collection in the United States.

In concluding this brief account of the materials and of the labor that is being done for the medical and surgical history of the war, we would admonish our readers to be patient, for at no distant day, if Congress does its duty in making appropriations, a work will be placed in the hands of the profession of which every worthy member may well be proud. Never before has such a mass of materials been furnished for such a history, and time must be allowed to digest them; and yet we venture the prediction, that there will not be nearly the time consumed in their preparation that has been consumed in producing all similar works in other countries.

The work is in good hands; it is open yet for the contributions of professional men and medical officers of the army, and due credit will be given to any one who, in any manner, aids in the great enterprise. R. M. L.

WASHINGTON, D. C., Feb. 28th, 1866.

EDITORIAL.

BOOK NOTICES.

The Physiology of Man: Designed to represent the existing state of Physiological Science as applied to the Functions of the Human Body. By AUSTIN FLINT, Jr., M. D., Professor of Physiology and Microscopy in the Bellevue Hospital Medical College, etc. New York: D. Appleton & Co.

The first volume of this great work is before us. To be completed in four volumes, issued yearly, it will constitute the most exhaustive treatise on Physiology that has appeared in this country. Designed to rank beyond the student's text-book, it discards much of the didactic prolixity which encumbers many of the standard works; and presuming upon the anatomical knowledge of his readers, the author aims to present a clear statement of all that is known in relation to the Physiology of Man. The present volume treats of Proximate Principles; The Blood; Circulation; and Respiration. Without descending to all the minutiæ of experimental detail, the author has brought forward the results of the vast experience and knowledge acquired by vivisections performed on the lower animals. The chapters on Circulation and on Respiration are especially rich in the fruits of such observations. For the readers of the leading European medical journals, the statements of our author will possess very little novelty; but to the profession generally, the arrangement and authoritative statement of discoveries and facts which have been only recently and perhaps timidly announced, will be interesting. As the principal value of every new work on Physiology consists chiefly in the addition thus made to the previously existing stock of knowledge, we shall

endeavor briefly to indicate some of the most important facts which are now for the first time placed in a tangible form before the professional public.

The chapter on Proximate Principles is more interesting than the corresponding chapter in the majority of physiological works. Under the head of *sugars*, the author discredits the theory that sugar and fat are oxidized in the lungs, or in the general system, for the purpose of keeping up the animal temperature. "The precise function of sugar and its mode of disappearance in the economy are not yet well understood. . . . We are only justified in saying that sugar is important in the process of development and nutrition, at all periods of life."

The question as to the possibility of the formation of fat in the system the author considers as definitely settled in the affirmative.

We are glad to see that the theory of Protein Compounds is rejected by Prof. Flint. He declares that "it is not a distinct chemical substance, for its composition is indefinite; nor a proximate principle, for it is produced artificially and by decomposition." The quantity of fibrin in the blood, "estimated by a process in which it is not exposed to dessication, is between 8 and 9 parts per 1000." He accepts Richardson's explanation of the cause of the fluidity of fibrin in the circulation, viz: "that the blood contains a small quantity of free ammonia, which has the power of maintaining the fibrin in its liquid condition." The whole subject is discussed at length in the chapter on the Blood, where are given all the arguments of different experimenters, *pro* and *con*. Prof. Flint, however, adopts the theory of Richardson as the only one fully substantiated by adequate observation. He denies the possibility that effused and coagulated fibrin is capable of organization. Effused fibrin may undergo a process of *fibrillization*, but this "is by no means an evidence of even commencing organization." Plastic lymph, which is capable of organization, is a substance quite different from fibrin.

The chapters on the blood are extremely interesting. The results of transfusion are related very fully, showing how wonderful is the vivifying power of this truly vital fluid. The fol-

lowing example is only one out of many: "Blood was passed from a living dog into the carotid of a dog just dead from peritonitis. The animal was so far revived as to sustain himself on his feet, wag his tail, etc., and *died a second time*, twelve and a half hours after. In this experiment insufflation was employed in addition to the transfusion." P. 99.

The author adopts Robin's explanation of the remarkable tendency of the corpuscles of fresh blood to arrange themselves in rows like rolls of coin, as observed with the microscope. "Shortly after removal from the vessels, there exudes from the corpuscles an adhesive substance which smears their surface and causes them to stick together. Of course the tendency is to adhere by their flat surfaces." P. 111.

The doctrine of the development of the red corpuscles from the colorless corpuscles meets no favor from Prof. Flint. "The red corpuscles appear before the leucocytes (white corpuscles) are formed. . . . It is most reasonable to consider that the red corpuscles are formed by a true *genesis* in the sanguineous blastema. . . . There is furthermore no sufficient evidence that any particular organ or organs have the function of producing the blood corpuscles. . . . Regarding them, as we certainly must, as organized bodies which are essential anatomical elements of the blood, it is difficult to imagine what reasons based on their function, should lead physiologists to seek so persistently after an organ for their destruction." (P. 120.) "The function of the leucocytes is not understood. The supposition that they break down and become nuclei for the development of red corpuscles, which at one time obtained, is a pure hypothesis, and has no basis in fact."

An entire chapter is devoted to a discussion of the causes of the coagulation of the blood. The experiments of Richardson and of his opponents are reviewed at great length, bringing the reader at last to the following conclusion: "When, as happens in the interior of the body, the blood coagulates under circumstances where the process will not admit of direct experimentation as far as the evolution of volatile substances is concerned, the best we can do is to apply, as far as possible, the facts which are proven with regard to coagulation out of the body,

when the phenomena can be minutely studied. Here, at least in the human subject and in animals, it seems demonstrated to be due to the evolution of ammonia." P. 166.

The chapters on the Circulation present a full discussion of the phenomena attending the movement of the blood. The experiments of all the leading observers, from the days of Hippocrates to our own epoch, are passed in review, affording much that will interest those who have not access to the original authors. The Professor differs from Dalton with regard to the shortening and elongation of the heart. Dr. Dalton teaches that during the systole of the organ the ventricles are elongated. That the apex of the heart is protruded during the ventricular systole is true, but Flint has shown that this is due to the synchronous distention of the great vessels leading from the heart, and that during the systole the ventricles are actually shortened. This fact was ascertained by suddenly cutting out the heart of a warm-blooded animal, and pinning its base with two needles to a thin board. With every ventricular contraction the point of the organ was visibly retracted.

The recent experiments of Marey with the "cardiographe" are fully detailed. Our limits will not permit anything more than this allusion to this most ingenious and perfect method of registering the movements of the heart, making the organ write its own story by a process not unlike that by which the telegraphic indicator impresses upon paper an impulse transmitted from a distant station.

An interesting series of experiments is given to illustrate the influence of the nervous system upon the movements of the heart. The author seems to doubt the importance attributed by some to the influence of the cardiac plexus. As for the influence of the pneumogastric nerves, "they undoubtedly perform the important function of regulating the force and frequency of its pulsations." (P. 235.) In respect of sudden death from blows upon the epigastrium, he inclines to the belief "that in such accidents the symptoms are due to direct injury of the heart. An additional argument in favor of this view is founded on our knowledge of the mode of operation of the sympathetic system. The effects of stimulation or irritation

of this system are not instantaneously manifested, as is the case in the cerebro-spinal system, but are developed slowly and gradually." P. 239.

With the exception of a recital of Marey's experiments upon the pulse, the chapter on the arterial circulation contains little that is new. For an account of Marey's sphygmograph we must refer our readers to the work itself; our limits will not permit us to transcribe the description of the delicate and complicated apparatus by which the pulse is made to trace on paper its actual force and form.

To the contractility of the smaller arterial branches our author ascribes the regulation of the capillary circulation. While refraining from a discussion of the phenomena of inflammation, he dissents from the opinion that this "modification of nutrition can be induced under our very eyes, simply by the application of irritants. With these views, microscopic researches on the *state of the blood and blood-vessels* in *inflammation* do not assume the importance which is attributed to them by many authors." P. 299.

Under the head of local peculiarities of the circulation, we notice that the Professor does not agree with those who consider any change in the quantity of blood within the cranial cavity "a physical impossibility." Among the organs provided with erectile tissue is now classed the uterus, since the experiments of Rouget, "who has lately shown by injections that the uterus is capable of erection like the penis." (P. 336.) "That the contractility of the lung tissue offers no impediment to the circulation is proved by the fact that an injection passes through the capillaries of the lungs as easily when they are collapsed as when they are inflated." P. 341.

While the section on Respiration contains much that is interesting, it presents little that is new. The subject of the diffusion of oxygen through the lungs and the removal of carbonic acid by respiration is not yet extricated from the difficulties that surround its comprehension. The concluding chapter on the relations of respiration to nutrition forms the most instructive part of this division of the work. Presenting a summary of the author's paper, originally published in the *Am. Journal*

of the Medical Sciences, Oct., 1861, it treats of the relations of oxygen and carbonic acid to nutrition; showing that oxygen, carried by the blood to the tissues, is by them consumed in some way that is not yet fully understood; while, in the words of Collard de Mortigny, "the carbonic acid expired is a product of assimilative decomposition, secreted in the capillaries and excreted by the lungs." From this view it naturally follows that the *besoin de respirer*, or *want of oxygen*, has its seat in the tissues rather than in the lungs or in the heart. This proposition is supported by the recital of a number of interesting experiments by vivisection, for which we must refer the reader to the pages of the work itself.

In conclusion, we cannot but congratulate the members of the medical profession upon the advancement of science which may be confidently expected as a result of the labors of such men as Prof. Flint. Though he may yet find it necessary to modify and to amend much that he has written, the evident zeal and candor with which his researches are conducted cannot fail to secure for his volumes a most cordial reception.

For sale by S. C. Griggs & Co., 41 Lake street.

Chloroform and its Administration. By ARTHUR ERNEST SANSOM, M. B., London. Philadelphia: Lindsay & Blakiston. 1866. Price, $2.25.

We cannot perhaps better give an idea of the merits of this book than to glean from it some of its teachings. It treats of the history of the discovery of anæsthetics, which shows that the boon has been sought by different persons through many years, and that the discovery has been long dawning upon the human mind, in accordance with what is perhaps the universal law, that great discoveries are not made suddenly, but are the consequences of generative antecedents, which render them possible, and from which they flow. As relates to the dangers of chloroform, statistics show that one death occurs in about 17,000 administrations. The author, however, thinks a considerable percentage of these die from fear or shock, and not from the effects of chloroform. In support of this view, he relates the

following incidents: "In the first case, in which Dr. Simpson proposed to try the effects of chloroform in a surgical operation, a boy was to be cut for stone. Just as the preliminaries were arranged, the boy died. Not a breath of chloroform had been given. If it had, the birth of the anæsthetic would have been its death. In another case, an apparatus for administering chloroform was applied to a patient about to be operated on. Suddenly he died. All around thought chloroform had brought about the result, but it was found that the valve was closed and not a whiff of chloroform had entered the lungs. Such accidents were not wanting before chloroform was thought of. It is told of Desault, that just as he was once about to perform lithotomy, he traced with his finger a line on the skin of the patient—the man shrieked and fell dead. A similar result occurred when Chopart was about to perform a simple operation. Another occurred in the practice of Mr. Stanley." In all about three hundred deaths have been reported, and of these 44 per cent died before the operation had commenced; 34 per cent during its performance, and 20 per cent shortly after its completion. There seems to be some doubt whether the use of chloroform has lessened the ratio of mortality from surgical operations. In amputations for severe injuries there is no improvement in late years, and the author says, that "in severe accidents necessitating an immediate operation, I believe we should hesitate before administering chloroform." Surgical operations for disease are, however, much more successful than they formerly were, but this is unquestionably in good part due to the improved medical (and especially hygienic) treatment that such cases now receive. The chapter on the chemistry of chloroform is full of interest and instruction, and especially is this true in what relates to its adulterations and impurities, which, however, is too lengthy to transcribe, while it is difficult to abridge. In its administration, it is recommended that an inhaler that will graduate the proportions of chloroform and air should always be used. We think the author exaggerates the danger of inhaling it from a napkin. We have reason to believe that anæsthetic agents have always been administered almost exclusively in this way in this city, and we have yet to

know of the first fatal result from their use; and though the experience of a single person is entitled to little weight in determining this question, even the negative testimony of a whole city during so long a period is worthy of consideration. The instrument is not so essential as that the person who administers the remedy should be possessed of knowledge and judgment. It has been more fatal to males than females—to those in middle life, than to the young or the aged—and more to the robust, than to the feeble and infirm. The diseases which increase the danger of its use are delirium tremens, fatty degeneration of the heart, uræmia and pyæmia, shock, hysteria and pulmonary disease, characterized by "general congestion and acute hyperæmia;" while, on the other hand, we are told that "patients suffering from consumption are, as a general rule, among the very best to submit to chloroform." The skin and tissues around the eye, rectum, genital organs and nails, longest retain their sensibility, and in the effort to overcome this, the use of the remedy is sometimes carried too far, which accounts for the relative frequency of fatal accidents from inhaling chloroform for trivial operations on these parts. The average amount inhaled in fatal cases in which it has been known, has been about one and one-half drachms—the smallest amount being but fifteen drops. To resuscitate from apparent death, artificial respiration, warmth and friction are relied on, while other stimulants are declared to be useless. The work concludes with chapters on anæsthetic mixtures, on the methods and practical rules for the administration of chloroform, and its uses in surgery, obstetrics and dentistry. It is a book that should be carefully read by every practitioner of medicine, surgery and dentistry. I.

For sale by S. C. Griggs & Co., 41 Lake street.

We have received from Dr. R. H. Ward, of Troy, N. Y., "The Transactions of the Medical Society of the State of New York for the Year 1865;" and from the author, Prof. J. C. Nott, of Mobile, Ala., a pamphlet, entitled "Contributions to Bone and Nerve Surgery."

The Principles and Practice of Medicine. By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College. Philadelphia: Henry C. Lea.

This volume is for the most part made up from the lectures of Prof. Flint, and will be highly valued by the college graduates who have had the pleasure of listening to his instruction. The material is well classified, and is arranged very conveniently for reference. The work is chiefly valuable as a record of the experience and opinions of its author, and as such it is interesting. As contributing anything in advance of the teachings of other similar text-books, its value is very slight. Some of the topics are treated in a rather superficial manner, e. g., the chapter on Cholera, which is very unsatisfactory as compared with the illumination which might have been reflected upon the subject by proper reference to the physiological discoveries described in the work of the younger professor.

For sale by S. C. Griggs & Co., 41 Lake street.

We have received the following new medical journals: *The Savannah Journal of Medicine*, a monthly publication, edited by Drs. J. Harris, J. B. Read and J. G. Thomas. *The Richmond Medical Journal*, edited by Drs. E. S. Gaillard and W. S. McChesney, a monthly journal, published in Richmond, Va. *The Medical Reporter*, a semi-monthly record of Medicine and Surgery, edited by Drs. J. S. B. Alleyne and O. F. Potter, of St. Louis.

CHICAGO MEDICAL COLLEGE.

The exercises of the seventh annual commencement of this institution were held at the lecture-room of the college on the evening of March 1st.

The degree of Doctor of Medicine was conferred upon twenty-two candidates—the *ad eundem* degree upon four, and the honorary degree upon five.

After conferring the degrees, the president of the college, Prof. H. A. Johnson, addressed the class with a few very appropriate remarks.

The valedictory address was delivered by Prof. Byford. The subject of the address was, the "Philosophy of Trades and Professions," or the influences of the practice of medicine as compared with those of other occupations. It was received with great interest by the class, as well as by the rest of the audience. After the exercises, the class and their friends, with other members of the profession, were invited to a pleasant entertainment at the residence of Prof. Hollister.

Our readers could not fail to observe in our recent salutatory, the omission of the name of Prof. Allen, as one of the former editors of this Journal. In examining the earlier volumes of the Journal at the office of a friend, we carefully noted the names of those who had preceded us in the editorial chair. We cannot explain the manner in which the name of one who had during two years labored so faithfully for the Journal was omitted in our notice.

There has recently been on *exhibition* in this city a negro with an enormous enlargement of the scrotum, from a form of hypertrophy peculiar to one species of elephantiasis. The patient is twenty-two years of age, remarkably healthy in appearance, and of fine development. The disease of the scrotum commenced about eight years ago; it has not, apparently, progressed during the past twelve months. The tumor is said to be between 50 and 60 pounds, and to be 28 inches in length and 22 inches wide. Members of the professions interested in securing collections of photographs of medical and surgical specimens, can obtain a most excellent photograph of this patient and his tumor, by enclosing 30 cents to John Mountford, 272 South Clark street, Chicago.

Friends of Prof. Brainard will be interested to learn that letters have been received from him with intelligence that his health is much improved. On the 5th of February he was intending to leave Paris with his family to spend a couple of months in Italy. He states that his friends may expect him in Chicago as early as August or September next.

We have received the fee-bill of the Moultrie County Medical Society. The following abstract will give the general rate of charges: Prescription at office, with medicine, 75c. to $1.50. Visits in town, $1.50; to the country, $2 for first mile, and 75c. for each additional mile. For night visits, about a third more is added to the above. Obstetrical cases, $10; in the country, $10, with half mileage. Consultations, $8, with half mileage. Surgical operations, (with the exception of a few minor cases,) $10 to $500. The charge for tracheotomy is $100 to $300; for cataract, $100 to $500. In proportion to the expenses of living, we believe our friends in Moultrie co. are better paid for their professional services than most of our acquaintances in Chicago.

We are desirous of securing a complete series of the JOURNAL from its commencement in 1844 to 1858. It is stated that scarcely a single file of the JOURNAL is in existence. We have fortunately already collected several full and several incomplete volumes. We desire to procure the following numbers of the "Northwestern Medical and Surgical Journal:" for July, 1851; for May, July, November and December, 1854; for January, February and October, 1865; and for January, 1856. We shall be under obligations to any of our friends who can send us any of these numbers.

DEATH OF DR. I. P. LYNN.—At a meeting of the profession, held at the Council Chamber, Chicago, March 2d, 1866, on the occasion of the death of Dr. I. P. Lynn, Dr. R. C. Hamill was elected Chairman, and Dr. Thos. Bevan, Secretary.

On motion, Drs. Allen, Blake and Miller were appointed a committee to draft suitable resolutions in relation to the melancholy event.

Dr. E. Ingalls made a brief address, eulogistic of the estimable qualities of our departed confrere.

Dr. J. A. Allen, from the Committee on Resolutions, reported as follows:

Resolved, That the intelligence of the sudden and untimely death of our late friend and co-worker in the medical profession,

Isaiah P. Lynn, M. D., is received by this meeting with emotions of profound pain and sorrow.

Resolved, That the memory of our deceased brother will be cherished by us as of one who, personally, and by his amiable disposition and fine friendly feeling, endeared himself to all who knew him intimately; whilst, by his conscientious earnestness in acquainting himself with the principles of medical science, and thorough devotedness to the welfare of those who entrusted themselves to his care as patients, he commanded the confidence, the respect and esteem of both the profession and the public.

Resolved, That we tender to his bereaved family and friends, the assurances of our warmest sympathy in this their great affliction.

Resolved, That copies of these resolutions be presented to the relatives, the public press and medical journals of this city for publication.

On motion, the report was accepted and adopted unanimously.

On motion of Dr. Hay, it was resolved that the profession attend the funeral in a body.

Dr. J. A. Allen then occupied the meeting with appropriate remarks, highly creditable to the amiable character, kindness and faithfulness of the lamented dead. He also referred to the peculiarly sad circumstances of the immediate cause of death, giving an entirely satisfactory explanation of the accident which had resulted so unfavorably.

Dr. V. L. Hurlbut followed Dr. Allen in a similar vein.

Drs. Brooks and McVickar referred feelingly to the courtesy and worth of the deceased, Dr. M. giving some incidents of his personal relations to the Doctor, of a very pleasant character.

Drs. N. S. Davis, S. Wickersham and D. L. Miller, also addressed the meeting, expressing their cordial endorsement of the resolutions, and of the sentiments of sympathy and respect which had been expressed by other speakers.

On motion, the meeting adjourned.

THOS. BEVAN, M. D., *Sec'y.*

MARRIED.—On February 13th, 1866, at the residence of the bride's parents, Moline, Ill., by Rev. A. B. Hitchcock, assisted by Rev. A. H. Lackey, Dr. R. M. LACKEY, one of the Editors of this Journal, and Miss FRANK A. HITCHCOCK.

THE

CHICAGO MEDICAL JOURNAL.

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ORIGINAL CONTRIBUTIONS.

Clinical Lectures on Diseases of the Eye. By E. L. HOLMES, M. D., Lecturer on Diseases of the Eye in Rush Medical College, and Surgeon to the Chicago Charitable Eye and Ear Infirmary.

ASTHENOPIA.

GENTLEMEN,—The power of endurance, or, in popular language, the "strength" of the eye, is very different in different individuals, and not unfrequently in the same individual at different periods of life. While some persons can read, write, or engrave, for instance, many hours daily, and even at night, without fatigue, and are not disturbed by unsuitable light, or by motion, as in riding, others suffer fatigue and pain from the slightest effort to look upon near objects.

The class of cases to which I wish to call your attention today, is characterized, as you have already seen in several patients at the clinic, by inability to use the eyes upon near objects without pain in and around the eyes, temporary indistinctness of objects, with more or less congestion of the different tissues of the eye. To this condition of the eyes has been given the term Asthenopia—weak-sightedness. It should be remembered that this term signifies want of endurance, and not indistinctness of vision, as in incipient amaurosis.

In studying the phenomena peculiar to this condition, there

are three principal elements to be investigated, which in fact divide these cases into three distinct classes.

The first class comprises those cases in which there is a pathological change in the ciliary muscle, not well understood, from which there is a debility or insufficiency of power, analogous to want of innervation in the general muscular apparatus of the body, in consequence of which exercise soon produces a sense of fatigue more or less painful.

The muscle cannot long remain in a state of contraction without a painful effort. It soon becomes wearied, and in spite of the patient it relaxes. In consequence of this, the convexity of the lens is decreased, and the focus of the eye is thrown behind the retina; objects become indistinct, the letters and lines for instance, in reading, "run together." At first there is a mere sense of weariness, but rest for a few moments, and looking at distant objects, restores to a certain degree the energy of the muscle; the sense of fatigue being relieved, the patient is able to use the eyes again for a short period, without inconvenience. Students, tailors, engravers and seamstresses are especially liable to this disease of the eyes. In the early stages of the affection, patients are able to labor many hours daily with only a feeling of weariness in the eyes at night, which is entirely relieved by sleep. After a period of time, however, such individuals experience fatigue each day earlier than before, and finally, are unable to pursue their occupations without pain and without constant demand for rest. If patients do not heed the warning which these symptoms give, the eyes become painful and congested at the slightest effort, and to such a degree often, that sleep does not relieve them. Persistent use of the eyes in this condition is liable to produce symptoms of retinitis, which may terminate in amaurosis. Fortunately the pain becomes so severe as to prevent such use of the eyes, and organic injury of the retina is probably quite a rare result of uncomplicated asthenopia.

This form of the disease has been called accommodative asthenopia, as being dependent upon an abnormal condition of the muscle of accommodation. It is comparatively rare in youth, being observed principally after the twenty-fifth year of age.

The causes of the disease are, chiefly: Undue use of the eyes, especially if there is insufficient light; weakness of the ciliary muscle from general debility, and very often, that condition of the eye described in our last lecture, as Hypermetropia. The hypermetropic eye, even in looking at *distant objects*, is forced to bring the ciliary muscle into a state of partial contraction. In looking upon near objects, it often requires the utmost power of accommodation to render the lens sufficiently convex. The eye while thus expending its total power of adjustment, is in the same relative condition as the muscles of the arm, while supporting the greatest possible weight; the eye, like the arm, becomes more speedily fatigued, and requires rest sooner than when but a part of its power is expended.

The second form of asthenopia depends upon a weakness or insufficiency of one or of both the internal recti muscles, and is therefore termed muscular asthenopia. As you well know, the ciliary muscle and the internal recti act consensually; the ciliary muscle, in contracting, accommodates the eye for near objects, and at the same time the internal recti contract to render the visual axis more convergent. It sometimes happens that the internal recti become weakened or insufficient. They possess sufficient force to rotate the eyes normally without difficulty, and even to retain the axis quite convergent for some time. But when it is required to fix the eyes long upon minute and near objects, the energy of one or both of the muscles is found wanting; there is a sense of fatigue, which speedily in continued effort becomes painful; the muscle loses its power of contraction, and no longer holds the axis of the eye upon the object; its antagonist gains the control, and rotates the eye outwards. The result of this is indistinct vision produced by double images. These two features, double images and temporary external strabismus, distinguish muscular from accommodative asthenopia. It should be observed that the double vision is not usually very marked, but is characterized by a peculiar indistinctness of objects, caused by unsteadiness of the internal rectus, slightly rotating the eye alternately inwards and outwards. Hence, in cases of slight insufficiency, the images are

not fully separated, but simply overlap each other to a greater or less extent.

The diagnosis of this form of the disease rests upon the two following means of examination: If the patient is directed to fix the eye upon some minute and near object, simple inspection of the eye affected will often show any divergency which may exist in the axes of the eye. A more delicate means is found in the use of the prism. You are aware that rays of light, on passing through a prism, are bent in the direction of its base. Now, if a prism be held before a normal eye, with the base downwards for instance, the rays of light, on passing through the prism, will be inclined downward, and, consequently, fall upon a portion of the retina lower than the images on the other retina. In this eye, therefore, objects all appear in the upper portion of the field of vision. Hence, you should impress this rule upon your minds: that the images of objects seen through a prism, are formed upon that portion of the retina corresponding to the side of the eye to which the base of the prism is directed. This, however, causes the object to appear in the opposite direction, or in that to which the angle of the prism is placed—or in other words, an object seen through a prism appears above, below, at either side, or in any intermediate direction, according to the direction in which the angle of the prism is held.

Now, if a prism with its base *downwards*, be placed before an eye, in which there is even a very slight insufficiency of the internal rectus, the rays will be bent downwards, while the objects will apparently be thrown, for an instant, directly upwards. Hence, there will be double images, that of the eye with the prism being thrown, for an instant, directly above that of the other eye. This double vision so disturbs the harmony of the action of the muscles of the eyes in their efforts to see single, that almost the slightest preponderance of one muscle readily controls the eye. In this case the external rectus being a little stronger than the internal, at once rotates the eye outward, very much quicker and to a greater extent, than when the prism is not used. Since the prism tends to throw one image directly above that of the other eye, the rotation of the eye

outwards carries this second image to the opposite direction, that is to the left, when the right eye is affected, and to the right when the left one is affected. In this way we see plainly the rotation of the eye outwards. Of the farther use of prisms in diagnosis, and of the mode of measuring the insufficiency of a muscle by the number of degrees in the triangle of a prism, which is required to unite double images, we shall speak in a future lecture.

The etiology of muscular asthenopia is sometimes obscure. It is often dependent upon debilitating diseases, in which there is a want of innervation of the general muscular system. It is worthy of notice, that if the eyes are too severely taxed in this condition, the internal rectus may not recover its energy for a very long period.

Acquired short-sightedness and hypermetropia are often causes of muscular asthenopia. If congenital, they are less liable to produce it, since the constant exercise of the internal recti from infancy gives them such strength, that they are able to hold the visual axes more convergent than in the normal eye. After adult age it seems difficult for the internal recti to develop by exercise more force. Hence, in acquired short-sightedness or hypermetropia, one or both of the internal recti are found too weak to produce the necessary convergency. After short and ineffectual efforts to accomplish this, the weaker soon yields to its antagonist, and the eye rotates outward. Rest, application of either tepid or cold water, and looking at a distance, enables the muscle to recover its energy temporarily.

The third form of this disease, or retinal asthenopia, depends upon an obscure pathological condition of the retina. There is a peculiar sensitiveness or irritability of the nerve which forces the patient to avoid certain colors and unsteady lights, especially artificial. Such patients suffer great pain in endeavoring to look long upon any object either near or distant. They cannot pursue the ordinary occupations of life. This condition usually exists to a greater or less extent, as a result of the other forms of asthenopia, as also independent of them. There is much obscurity in the causes of this affection, although the intimate relation between the retina and optic nerve with

the sympathetic nerve, and with the nerves of sensation and motion, will explain many of the phenomena of the disease.

In regard to the treatment of these diseases, you should remember that it is more satisfactory in the earlier stages than after the affection has been long established. If there appear the slightest symptoms of the disease, great care is necessary in regard to quantity and quality of light, and kind and duration of labor. Patients, during convalescence after severe, debilitating diseases, in which the general muscular system fails in innervation, should use their eyes on near objects as little as possible.

Short-sightedness of marked degree requires suitable concave lenses, even in reading. Hypermetropia requires double convex lenses. In either of these conditions of the eye, if hyperæsthesia of the retina already exists, all use of the eyes, with scarcely an exception, even with lenses, should be avoided.

In cases of insufficiency of the internal rectus, the use of a suitable prism, with the angles directed outwards, will often relieve the indistinctness of vision. Since the rotation of the eye outwards in these cases, carries the central portion of the retina towards the inner angle of the eye, a suitable prism with the base towards the inner angle of the eye, bends the rays of light towards its base; consequently, these rays will form images upon the central portion of the retina. In this way prisms overcome double vision, when the visual axes are not both directed upon the same point.

In extreme cases the division of the tendon of the external rectus restores the equilibrium between this muscle and the internal rectus.

Galvanism will sometimes restore the ciliary and internal recti muscles to their normal tone.

Patients are not unfrequently enabled to read and work upon minute objects comfortably by covering the affected eye.

Cold douches to the closed lids, the external application of aconite, morphine, iodine, chloroform around the eyes, are sometimes found to relieve temporarily the pain. To alleviate the photophobia, plain glasses of London smoke, or cobalt blue color, should be worn, as circumstances require.

During the whole treatment, great care should be directed to the condition of the abdominal organs. The thoughts of patients should be diverted from their disease. They should be employed as much as possible in the open air, in travel, and such occupations as will not demand much exercise either of the ciliary or internal recti muscles.

Patients should be assured that there is no danger of "amaurosis," when the eyes are not abused.

When all the precautions have been observed, as above recommended, there may be benefit in exercising the eyes by reading a short time daily, and thus gradually restoring the muscles to strength, and overcoming the peculiar irritable condition of the retina.

Although a careful study of each case will enable you often to relieve the affection, you should remember that there are patients whose condition seems to defy the most skilful treatment.

Case of Hourglass Contraction before Delivery. By D. L. CRIST, M. D., Bloomington, Ill. (Reported by C. JUD. GILL, M. D.)

Mrs. McG——, aged 45 years, the mother of six children, was taken with labor pains early on the morning of Feb. 15th. Saw her at 9 o'clock in the evening. On examination found the os dilated to the size of a silver dollar, and in good condition. Pains regular and strong. At 10 o'clock the membranes ruptured, and an unusual amount (I should think not less than a gallon) of liquor amnii gushed out. An examination was now made and a breech presentation recognized.

At the next pain another gush of water, not so violent or copious as the former, but yet quite free, took place. The case was now left to nature about an hour, the pains continuing regular and powerful. Another examination was then made and the os found well dilated, but no progress in the labor otherwise. At each succeeding pain the head came down into the true pelvis, but immediately retracted above the superior strait as soon as the pain ceased. Desiring to ascertain, if

possible, the cause of delay, I passed the left hand into the uterus, along the abdomen of the child, until I reached about the point of the ensiform cartilage, where I found the body was firmly grasped by a contraction in the uterine walls. The feet were above and firmly held by the stricture, while the umbilicus was below. With some difficulty I succeeded in passing the finger through the stricture between the child's feet, and attempted to overcome the contraction by continued pressure, but failed. After giving the patient a rest for half an hour, a tape was passed around the thighs of the child, and, not being provided with chloroform, I administered antimony to the extent of producing emesis. Steady traction was then made for about half an hour, when the feet came down suddenly, and very soon with about half the body appeared externally. The progress of the labor here became arrested and remained so nearly an hour. The pains being weak and ineffectual I administered ergot, and as soon as they became strong made vigorous traction and soon succeeded in effecting delivery. The child was dead. The placenta was delivered without difficulty. The patient recovered with no unusual symptoms.

If this were a case of hourglass contraction, what was the probable cause? I can think of none, unless it be the unusual amount and sudden expulsion of the liquor amnii.

On the Treatment of Cholera. By D. B. TRIMBLE, M. D., of Chicago.

As the subject of Cholera is now occupying the medical as well as the public mind, it may not be out of place for those in the profession who have had an opportunity of witnessing its ravages, to give their experience and opinions respecting its treatment. Having seen it to a greater or lesser extent in each of the four epidemics that have prevailed in the United States since 1832, I have been compelled to study it, both in the writings of others and by observation at the bedside. I therefore propose to give a brief relation of the treatment as practised by some prominent authorities, and also my own,

hoping it may be of use to some of the numerous class of young physicians who recently left this city to enter upon the pursuit of our arduous profession.

Its semiology and treatment are what practically concerns the physician, and though it would be very gratifying to understand its etiology, it is not of essential importance. Whether it is contagious or non-contagious, or purely epidemic, is a matter of more interest, but from the conflicting opinions prevailing on the subject, cannot be definitely determined without more critical observation. My own opinion on this subject, is, that if it does not appear amongst us, it will not be owing to quarantine regulations however strict. Still, there can be but little doubt that proper sanitary regulations in cities will greatly abbreviate and lessen its ravages.

Dr. William Aitken, of Edinburgh, in his recent work on the "Science and Practice of Medicine," on the subject of epidemic influence and laws, says: "The second characteristic feature peculiar to some of the miasmatic order of zymotic diseases is, that they sometimes spread rapidly so as to incapacitate and destroy great numbers of people. The disease is then said to be epidemic. No subject has afforded greater scope for speculation, than the origin, cause and progress of epidemics. It is in vain to speculate upon the subject; and in the words of Dr. Wood, of Pennsylvania, 'all we can say with certainty regarding epidemics is, that there must be some distempered condition of the circumstances around us, some secret power that is operating injuriously upon our system, and to this we give the name of epidemic influence or constitution,' which is believed to predispose to the receptivity of the specific disease poison." "The most recent speculation regards the discovery of a peculiar atmospheric condition, ascribed to a principle called *ozone*, of which, as yet, we know nothing definite." In regard to the laws of epidemic influence, he says: "This influence frequently predisposes to disease, apparently independent of any other known cause, as in the case of influenza, or *cholera*." Sometimes the epidemic influence manifests itself by different types, and "may demand different and even opposite modes of treatment." During

epidemics other diseases are apt to assume more or less of the prevailing epidemic features. Thus when cholera prevails, looseness of the bowels often complicate the course of other affections. "The first effects of the epidemic are usually the most violent and marked." "The epidemic influence sometimes disappears entirely after a short prevalence; sometimes continuing with irregular intervals for several years, as witness influenza and cholera." The cholera first appeared in the Eastern States in 1832; reappeared in 1834; then disappeared as an epidemic until 1849; returned again in 1854, and has not appeared since, except sporadically. In the above mentioned circumstances relative to the laws of epidemics, all observing practitioners must coincide; and also that "the lower animals are also subject to epidemic influences; and seasons of unusual fatality among them have coincided with those in which the human family have suffered." Witness the "cattle plague" now prevailing in Europe. A chapter in his work "on the management of epidemics," is well worthy of perusal by not physicians only, but by all who have control of municipal affairs, but it is too lengthy for quotation. The recommendations may be summed up in enforcing cleanliness, temperance, ventilation, the use of pure water, disinfectants and equanimity of mind. In regard to cholera, Dr. Aitken thinks it both epidemic and contagious. Dr. Flint, in his new work on the "Practice of Medicine," contends against its contagious nature. (Page 425.) Dr. Wood says: "The essential and specific cause of this" (Asiatic) "form of cholera, is undoubtedly an epidemic influence." "The nature of the *specific* cause is unknown." "The hypothesis that cholera is propagated by contagion has not been without numerous advocates." This hypothesis he endeavors to confute. His enumeration of the predisposing and exciting causes coincide so thoroughly with my own observation that I am induced to quote them. In relation to the first class, he remarks: "The *predisposing causes* are very numerous. Whatever is calculated to reduce the vital energies, or to reduce the vital actions below the standard of health, may be ranked among these causes. Not only are debilitated individuals in greater danger when laboring

under this disease; they are also much more liable to its attack. Previous disease, old age, intemperance, vicious indulgences of all kinds calculated to impair the health, deficient alimentation, an exclusive vegetable diet, confined air, especially in low and damp places, the effluvia of crowded residences, continued grief, *fear*, anxiety and other depressing emotions, all predispose to cholera." "Nor are the *exciting causes* less numerous." "Whatever makes a sudden and powerful impression on the system or irritates the stomach;" "exposure to cold while our body is warm;" "indigestible food;" immoderate eating; "unwholesome drinks, as impure water or impure liquors of any kind;" "very cold drinks or ices, taken too freely;" "purgatives, especially drastic," etc. In the last epidemic that visited this country, I remember attending a portion of a family of nine persons, (part was attended by a homœpathist) five of whom in the course of a week were taken with cholera; three died after a few hours sickness,—one after four days, and one, a little girl of eight years of age, recovered. The last mentioned (who was my patient) was taken from the house before she was attacked. They were temperate people, and lived moderately well, though the house was small for the size of the family, and the yard very small, containing a well of water with a pump, and also a privy. Upon examination of the premises by the mayor, it was found that the liquids from the privy had percolated through the earth, and mixed with the water in the well. This terrible impurity, the slight ventilation of the building, the dampness of the situation, (being near the Delaware River,) and the epidemic influence that had just descended on that locality, were probably the causes of the great malignancy of the disease.

In support of my belief, that quarantine regulations are of little or no avail in preventing the presence of the cholera, I will quote the opinion of the Epidemiological Society of Great Britain in regard to it, and which may be found in the *Medical News and Library*, for November, 1865. It says: "With respect to any endeavor to exclude epidemic cholera by the system of quarantine, no reliance whatever can safely be placed upon it to keep off or prevent the pestilence. 'Sanitary pre-

cautions *within* a *place* are far more important than sanitary orders without.' "

Cholera is sometimes preceded for several days or hours, (as the case may be,) by a diarrhœa, but often comes on suddenly, with vomiting and purging; the former, and, after a few dejections, the latter, being composed of a clear liquid with white flakes floating in it, or milky appearance. There is sometimes nausea, though this is not an invariable accompaniment of the vomiting. Vertigo, tremors, great muscular debility and severe pains in the bowels succeed. There is great thirst and heat in the stomach. The urinary secretion is partially or entirely suppressed. The circulation is greatly depressed in the majority of cases, producing faintness, a feeble and rapid pulse, which often becomes imperceptible hours before life is extinct. There is depression also in the function of respiration, producing more or less dyspnœa, with a cool breath. The muscles are more or less affected with cramps, though there are cases in which this symptom does not occur. The surface of the body is cool and damp; sometimes there is profuse perspiration. The skin often assumes a cyanized or blue appearance; the features are contracted, and the extremities present a shrivelled appearance. The eyes are sunken and have a filmy appearance; the hearing is often obtuse; the voice very weak, or entirely suppressed; and the mind generally tranquil from its inertness. Sometimes reaction takes place, and there is considerable fever.

In regard to the treatment there is considerable difference of opinion among practitioners, though among standard authorities there is not so much. In regard to the prophylactic treatment, Dr. Flint says: "Attend to the diarrhœa; if treated early it can generally be checked; and if checked, the cholera does not generally appear." He uses anodynes, astringents, "rest and recumbancy." He recommends laudanum and spts. camphor; or tinc. opii camph. with tinc. kino, catechu, or krameria; or sulph. morph., with ac. tannic, or acet. plumb., bismuth and capsicum. I have used with very good success, in this stage of the disease, a combination of opium, camphor, capsicum and tannic acid, digested in the compound spirits of sulphuric ether.

In the first and second stages of the disease, or those preceding collapse, the indications for treatment are, according to Dr. Wood, "to arrest the evacuations from the stomach and bowels; to relieve irritation of the gastro-intestinal mucous membrane; to restore the suspended secretions, especially that of the liver; to equalize the circulation; to relieve the nervous disturbance; and to support, when necessary, the general strength. Of these, the most important is to arrest the alvine evacuations, for it is by their continuance and increase that the fatal condition of collapse is generally induced." To meet these indications it has been my practice to prescribe opium or some of its preparations, in connection with calomel or pil. hydrarg. (generally the former) in small and frequently repeated doses, and combined, if the case was urgent, with some astringent; as acet. plumb., kino, or krameria. In regard to the use of opiates, Wood, Eberle, Aitken, Flint, and a large majority of authors and practitioners, unite in approving. The three first mentioned authors, with many others, concur in the use of mercury. Dr. Flint does not recommend it; but I have seen too many cases, which, after the administration of calomel, and the return of the secretion of bile, and its appearance in the evacuations, have been gradually relieved from the diarrhœa and vomiting; from the cramps and pain; the temperature of the skin augmenting; the pulse improving, the strength increasing, and all the symptoms alleviated; not to attribute much of this improvement to the mercurial influence, and to believe, that without it, those cases would have been fatal.

In some cases, and those are generally the most fatal, there is little or no vomiting or diarrhœa, but the patients rapidly sink into the stage of collapse.

All these authorities also recommend astringents; and plumb. acet., kino, krameria and catechu are the especial astringents recommended. Tannic acid is with me also a favorite astringent in this disease. The acetate of lead acts as a sedative to the bowels, as well as an astringent; the others by their astringency only. To allay the intense thirst, small pieces of ice may be frequently swallowed, but large draughts of water only aggravate the vomiting. The ice will often alleviate the

nausea, and for this purpose also, carbonic acid water, lime water, aromatic spirits of ammonia, or other aromatics, may be given; and a sinapism of full strength applied to the epigastrium. An enema composed of thin clear starch or linseed tea, with laudanum; with an astringent, if the case is very urgent, in addition, may be administered, with a view to checking the diarrhœa and alleviating the tormina. This may be repeated. To relieve the cramps, dry frictions may be applied, but stimulating frictions are objectionable, on account of the irritation of the skin soon becoming too great to bear them. If the feet and legs alone are cramped and cold, a warm stimulating foot-bath may be used. During the last epidemic, the thought occurred to me that anæsthetics might be applicable to this symptom, and I determined to use chloroform in the first favorable case for its administration that should present. About the last case I had that year, was, from the great severity of the cramps, also the most suitable for the experiment. The patient, who was a strong muscular man, about thirty-five years old, sent for me in the morning, but being from home, I did not see him until about 11 o'clock A. M. I found him vomiting and purging the peculiar choleraic fluid; with the other symptoms of the second stage, and cramped apparently in every muscle of his frame. The muscles of his limbs, abdomen, thorax and face were contracted, giving him a most frightful aspect, and requiring three or four strong men to keep him on the bed, during his paroxysms. Though a man of firmness, his screams could be heard in neighboring houses. He resided three miles from the city, and I sent a messenger for four ounces of chloroform. His skin was cool, and pulse scarcely perceptible. I gave him laudanum and brandy, which he at once ejected, and I awaited the arrival of the chloroform, which was handed me while he was in a severe paroxysm of the cramps. I immediately poured some on a handkerchief and held it near his nose, moving it from side to side of the bed, as he threw himself about, in his agony. After several minutes he suddenly threw himself on his back, perfectly motionless, and with staring and fixed gaze, seemed scarcely to breathe. But presently the lids relaxed, the features became less rigid,

and he fell into a quiet slumber. I sat by him for some minutes while he thus slept, when he awoke cramped, and exclaiming "more! more chloroform." I administered it again with a more speedy result, and with longer effect, and was then obliged to leave him; giving strict directions for the use of the chloroform, and warning his attendants of its power. I returned at 4 o'clock P. M., and found that they had used it *all;* but he was greatly relieved of the cramps, and I now commenced the use of calomel and opium, which he partly retained. The vomiting and purging were of less frequent occurrence, the cramp returned only at long intervals, and then more slightly; and in about thirty-six hours from the first administering of the calomel, there was the appearance of bile in the stools, from which time his symptoms were greatly alleviated, and he rapidly convalesced; and in one week from the commencement of the attack, he was down stairs. I believed then, and still believe, that the chloroform saved his life, for though I do not suppose it would have cured him, yet it alleviated the intense suffering, which of itself would have probably produced fatal effects, and gave an opportunity to administer other remedies that would not have been retained but for its effect. In the *Medical and Surgical Reporter*, for October 5th, 1861, are several testimonials to the good effects of anæsthetics in cholera. Dr. Rowell, of San Francisco, gave it, "with a view to relieve pain only; morphine and opium in enormous doses, having proved unavailing, being rejected by the stomach as soon as swallowed." In his case, like my own, the vomiting and cramps ceased, and "the appropriate remedies were tolerated by the stomach, until their therapeutic action was fully established, and the disease controlled." Dr. Thos. D. Mitchell, in his work on "Materia Medica and Therapeutics," relates the case of a physician who was seized with cholera, and who, having no other remedy at hand, inhaled it, went to sleep, and awoke in "a safe condition." Steady and firm extension of the muscles is another means of relieving cramps.

In extreme prostration the diffusable stimulants may be used, but with caution. The intemperate require them more than the temperate. The ethereal preparations are perhaps the best;

but tinc. camphor, arom. spts. ammon., brandy or port wine, may be used with this view.

Leeching is recommended in some cases, both by Prof. Wood and Dr. Aitken. The former advises it in the earlier stages to the epigastrium, where there is tenderness or burning pain in the stomach; the latter, to the temples, when there is headache. In regard to bleeding by venesection, the general impression is against it, but some eminent physicians have strongly advocated it. I have an indelible recollection of the first case that I ever attended, (in 1832,) and that not as a physician, (for I had not then entered on my medical studies,) but as an interested nurse, for it was in the case of my father. He was a man of delicate constitution, and was just convalescing from a slight attack of fever, when he was attacked with cholera, the cramps attacking first the muscles of the throat, and gradually extending to the limbs, but not so severely cramped as many. Our family physician, who had attended him up to this time, was himself taken sick, and sent a younger gentleman. My father was rapidly sinking, when the doctor alarmed my mother by proposing to bleed him. This she objected to, knowing his peculiar susceptibility to the effects of bleeding, usually the loss of three or four ounces of blood causing him to faint. He requested a consultation, when an old medical friend of my father was called in, but he too objected to bleeding. After considerable argument, however, he was induced to give his assent. By this time the surface was cool and shrivelled, and the pulse at the wrist almost imperceptible. He was raised up in bed, and with intense anxiety I watched the process. At first the blood would scarcely flow, but gradually it increased, and as they sat on either side of him with their fingers on his wrists, I could see the doctors exchange gratified glances with each other, and after taking, what I then thought, an enormous quantity, (about 12 or 14 oz.,) my father was laid down greatly relieved, and his pulse restored to a moderate volume. He was afterwards cupped over the abdomen, and eventually recovered. This gentleman afterwards informed me, that the two first cases he treated, (a father and son,) both died. He gave them stimulants, opiates, etc. In subsequent cases he almost invariably

bled, and his success was very great. In my own practice it has been seldom that I have resorted to it, and then in cases that did not enable me to decide for or against its propriety. Dr. Wood says: "In those rare cases in which the pulse is full and strong, especially if connected with convulsive symptoms, blood should be taken from the arm." But in my father's case the pulse was greatly depressed, and this was his physician's reason for bleeding; I suppose on the theory of internal congestion. Dr. George Johnson, Prof. of Medicine in King's College, in "Notes on the Pathology and Treatment of Cholera," takes the position that the collapse of cholera is not due to a drain of liquid from the blood, and strongly advocates free venesection as the remedy chiefly to be relied on. His arguments are very ingenious, and well worthy of perusal, but too lengthy for quotation. In regard to the effect of venesection on the symptoms of collapse, he says: "But what has been the effect of venesection in not one or two, but in a large number of cases of cholera, and in the hands of many practitioners?" "It is in the writings of the Indian practitioners, that the largest amount of evidence is to be obtained as to the influence of blood-letting in cholera. Scott makes the following remarks on this subject: 'The abstraction of blood, unless as an anti-spasmodic, is a remedy so little indicated by the usual symptoms of cholera, that its employment in the cure of this fatal disease has afforded a signal triumph to the medical art.' It requires no common effort of reasoning to arrive at the conclusion that, when the powers of life appear to be depressed to the lowest degree, the pulsation of the heart all but extinct, the natural heat of the body gone, and the functions of the system suspended and incapable of being revived by the strongest stimulants, the abstraction of blood might yet prove a remedy against a train of symptoms so desperate." "Few remedies, on fair trial, have been more generally or unequivocally advocated than free blood-letting; and the most that has been urged against it is, that it is not always successful." He then quotes reports from medical officers, furnishing very striking testimony as to the benefit of bleeding in cases of extreme collapse. Annesley says: "In place of syncope being

produced by bleeding, in the cases which I have treated, the pulse has invariably improved, and the feelings of faintness and debility disappeared." Bell makes the following statement: "The effect of blood-letting would indeed sometimes appear almost miraculous. A patient will be brought in on a cot, unable to move a limb, and, but that he can speak and breathe, having the character both to touch and sight, of a corpse; yet will he, by free venesection alone, be rendered in the course of half an hour, able to walk home with his friends." Rogers gives the following description of the effects of venesection by a medical man, who was himself the patient: "There was a sensation which I am at a loss to describe, as if my heart was ceasing to beat, and a dread of suffocation; this sensation was instantly relieved by bleeding, and I recovered immediately." After giving still farther testimony to this treatment, he says: "I maintain that the numerous well authenticated instances of great, and immediate, and permanent relief by means of venesection in the collapse of cholera, are irreconcilable with the hypothesis in question, viz: the loss of the liquid constituents of the blood." Dr Johnson's article is reported in the *Medical News and Library*, for January, February and March, 1866.

Emetics are never proper except in the forming stages, when, if the stomach has been filled with undigested food, a gentle emetic,—of infusion of mustard, or of ipecacuanha, may be used. In regard to *purgatives*, there is a difference of opinion respecting their use. Dr. Wood limits their employment to the mildest laxatives, if costiveness should be produced by the means used for checking the disease. Dr. Johnson, in the article above alluded to, advocates giving both cathartics and emetics, contending that the fatality is less than where opiates and brandy are employed. He chiefly uses castor oil as a purgative; Dr. Wood, rhubarb. In the stage of collapse, active stimulation, judging by the symptoms alone, would seem to be called for, but experience has shown that it cannot be used largely. In the opinion of Dr. Johnson it is positively injurious, but Drs. Flint and Wood advise it moderately; and the two latter physicians, as well as Dr. Aitken, recommend in this stage as external applications, warm blankets, hot bottles, sinap-

isms, astringent applications to check the profuse perspiration, etc. Bicarbonate of soda, weak animal broth with salt, injections of salt water and laudanum; to allay vomiting, chloroform, ether, creosote, etc.; to promote reaction, the essential oils in alcohol, diffusable stimuli, etc.

When *reaction* is established, "the treatment must be made to conform to the variable morbid conditions presented, and must be guided by the general principles applicable to other affections." (Wood.) Much care in the diet should be observed until the patient recovers fully his wonted health. As a prophylactic, Dr. Salisbury, of Illinois, recommends cider, and other diuretics. ("*Journal*," for November, 1865.)

A peculiar and, as claimed, a remarkably successful mode of treatment has been practised by Dr. John Chapman, of Southampton, England. It consists chiefly in the application to the spine of bags of ice. Occasionally he alternates with *warm* water. He relates seven cases, five of which were successful. No doubt this measure would have a powerful influence, whether for good or for evil my experience will not enable me to say. During the epidemic of 1849, I was called to attend on an estimable young physician, residing about three miles from my home, but being absent on professional duty did not see him until nearly six hours after the first symptoms. He was then collapsed and speechless, though not insensible, and had directed his own treatment; a portion of which was the application to his abdomen of cloths saturated with ice water. He died about two hours after I first visited him.

HOSPITAL REPORTS.

Cook County Hospital Surgical Clinic.—By Dr. Geo. K. Amerman, Attending Surgeon.

(Reported for the Chicago Medical Journal.)

Gentlemen,—To-day we meet you for the first time under the new administration of this Hospital, to inaugurate, under many temporary inconveniences incident to a new enterprise of this character, our clinical course of study. The reorganiza-

tion of this Hospital, under its present management, makes it a permanent institution, and we now have every means afforded for clinical instruction, and hope to be able to present to you, from this time forth, the cases at the bedside, in such a way as to make you familiar with disease and accident of every kind.

We are glad to see so many of you on this occasion, and we welcome you to the wards of this institution. To-day we commence our regular course of clinics, to be continued throughout the entire year; and as the executive officers of the Hospital are willing to afford every facility to the Medical Board for clinical instruction, we trust we shall succeed in our endeavor to make the course interesting and instructive to each one of you.

With these brief remarks, let us turn our attention to the patient now before us.

He states that he is 53 years old, and has always enjoyed good health. That he is by occupation a sailor, and that two years ago he fell from the rigging of a ship and struck on the left side, receiving a severe contusion over the anterior tibial region of that side. The injury, however, was not so serious as to prevent him from pursuing his ordinary avocation, and supposing it only a temporary inconvenience, he paid very little attention to it, using only simple domestic remedies as suggested by his friends.

About six months after the occurrence of this injury, a swelling made its appearance over the anterior middle third of the left tibia, and continued to increase for several weeks, and finally, opened and discharged a large quantity of unhealthy pus.

From that time to the present, a year and a half, the limb has been a constant source of trouble; and for the last six months a large ulcer has existed over the original seat of the injury, occupying the lower two-thirds and nearly surrounding the entire limb.

At present the leg is flexed upon the thigh, and cannot be extended beyond a right angle. It is swollen, painful at times, and entirely useless. The ulcer has an unhealthy, livid appear-

ance. The surrounding soft parts are œdematous. His general health is good.

The length of time this disease has existed—its traumatic origin and gradual progress—render it very probable that the original difficulty commenced in the bone and periosteum, and that we now have osteitis, continuing for two years, and finally giving rise to inflammation and ulceration of the soft parts.

With this view of the case, what can we do toward curing the patient? What medicines control or exercise any influence over this disease? What local means will aid in healing this large ulcer, and restoring the proper functions of the limb?

So far as I know, there are no means, constitutional or local, which promise any permanent benefit in a case of this kind. Osteitis, at this stage, is entirely beyond the reach of remedial means. The gradual hypertrophy of the osseous tissue, which always ensues from this long continued over-action of the part, and the interstitial molecular changes which result therefrom, cannot be influenced, in any degree, by the administration of medicine. After the bone has become enlarged, the periosteum thickened, the soft parts extensively involved, and the limb contracted and useless, the only course to be pursued is the removal of the diseased part; and in this case, amputation of the leg is the only thing that will afford any reasonable expectation of a cure.

The patient is anxious to have the part removed, and after consulting with the surgical staff of the Hospital, we have decided upon the operation, and will now proceed to remove the limb about four inches below the knee-joint.

The first thing after deciding to perform an operation, is to select and arrange the instruments necessary for its proper performance. These should be placed on a small bench or stool, and arranged in just the order they will be required, so that without any trouble or inconvenience, you can put your hand on them at any time.

The next thing, is, to arrange the bed or table for the patient to lie on during the operation. This should be placed in a

light, airy apartment, should be about two and a half feet high, and stand firm. It should be covered with two or three folds of clothing, so as not to be too hard, and, if convenient, this covered with oil cloth, to prevent soiling.

These arrangements all complete, let the patient remove his outside clothing, and after fixing his position fairly on the bed, administer the anæsthetic. As soon as the patient is fully under the influence of the ether, you carefully apply the tourniquet, which is always safer and better than trusting to the fingers of an assistant, draw the patient down to the edge of the bed, and directing your assistant to hold the limb, you proceed, slowly and carefully, to its removal.

(In this case we shall adopt the old antero-posterior flap method, and as that operation is familiar to you all, we will not describe the steps of the operation.)

After the limb is removed, proceed to apply the necessary dressing. These should always be very simple and light. First, carefully secure every bleeding vessel, then stitch the flaps together, accurately adjusting their edges with as many interrupted sutures as are necessary for that purpose, and placing over this three or four thicknesses of muslin, wet in cold water, as a compress, and over the whole a roller bandage completes the dressing.

The patient will now be removed to the ward, a full anodyne administered, and at our next clinic we will see the progress and result of the case.

January 27. We will first examine the patient whose leg was amputated a week ago. You perceive he appears quite comfortable. The pulse is only 80, appetite good, bowels regular, and he rests well at night. Since the operation there has been no constitutional disturbance, and the only treatment consisted of an occasional anodyne at night. The wound united by adhesion throughout one-half of its extent, and the remainder is closing by granulation. It looks well, and is, for the most part, free from pain. The only dressing is a light compress and roller to steady the parts.

Here we have the specimen after its removal, and it shows, in a remarkable manner, the changes produced in the osseous tissue by long-continued inflammation. The soft parts and periosteum have been removed, and you perceive, in the first place, the increase of size, the tibia being nearly a third larger than normal. With this hypertrophy there is also an increase of weight. This tibia weighs at least twice as much as a healthy bone should weigh. And again, the texture is changed; instead of a layer of compact tissue surrounding the cancellous texture and medullary canal, the whole thickness of this bone is composed of a dense hard tissue almost like ivory: *eburnated*, as it is called. And lastly, the surface is everywhere rough and uneven, with numerous processes and tuberosities projecting from it and extending across the interosseous space, which become firmly united to the fibula. These are sometimes called osteophytes.

These changes of size, weight, texture and form are all the result of long continued inflammatory action of the part; and from their character and the nature of the tissue involved, we see how inefficient all medication would prove, and how necessary it becomes to remove the whole of the diseased part.

(This patient was discharged, cured, February 26th, with a good stump.)

The next patient to whom we will direct our attention, has an affection of an entirely different character, and one of very great interest and importance.

He says he is 65 years old, and has always enjoyed good health. That about two years ago a small hard swelling made its appearance on the middle of the lower lip, which at first attracted very little attention, and seemed of trivial importance.

Soon after its appearance, however, it ulcerated and assumed a much more serious form, the ulceration spreading rapidly and involving the surrounding parts. This unexpected development and progress of the disease induced him to consult several surgeons in reference to it, who advised various applications which were assiduously used, but without any apparent benefit. A week ago he was admitted into the Hospital and is very anxious to have something done for relief.

His general health is excellent, and the only difficulty is located in the lower lip, which, as you see, is the seat of this large, ragged, unhealthy-looking ulcer. The whole lip is involved in this disease, and a large portion of it has been entirely destroyed.

The base of this ulcer is indurated and covered with large, flabby, greyish granulations, surrounded by a jagged, irregular edge. It discharges a fœtid ichorous matter mixed with saliva. The surrounding soft parts and neighboring lymphatics are healthy.

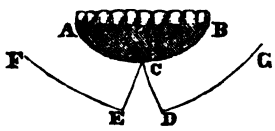
The first question that arises in this case relates to the character of this ulceration, which the patient states has existed for nearly two years. Very evidently this is not a common simple sore, and will not yield to ordinary treatment. He has already made diligent use of various local applications, without receiving a particle of benefit, and if we expect to succeed any better, we must first thoroughly understand the nature of the disease.

So far as we can judge from the history of the case, this affection originated without any assignable cause, and this fact, connected with its first appearing as a small tubercle situated on the lower lip, are suspicious circumstances of a malignant nature. Soon after its appearance this swelling ulcerated, and from that day to the present it has rapidly increased in size. These additional facts, the rapid progress of the disease, its tendency to involve surrounding parts, its persistency under treatment, together with those already mentioned, its originating spontaneously as a small tubercle on the lower lip, and withal its present appearance, leave no doubt as to its being the form of malignant disease commonly designated Epithelial Cancer.

Taking this view of the case, then, the next question is, what can we do in the way of treatment? Local applications have already been thoroughly tested and found useless, and constitutional means promise no better success. The experience of the past shows that when the general health is good, the different functions of the body active, with no cachexial symptoms present, internal medication exercises no influence over the progress of any form of cancer, and in every case the only question in reference to the treatment, is regarding the propriety of operating for its removal. In this case an operation is the only resource that promises any benefit whatever, and we must either abandon the patient to his fate, or excise every particle of this diseased mass. The great objection against operating in cancerous affections, is their liability to return and pursue even a more rapid course than if left to themselves, and hence the question of excision becomes a very serious one, and should in every instance be carefully considered, and all the surrounding circumstances taken into account before deciding what course to adopt. In this case the patient is anxious to have the part removed, and after consulting with the surgical staff of the Hospital, it has been decided to excise the entire lower lip, and construct from the surrounding healthy parts as good a substitute as possible. We will now administer the anæsthetic and proceed to perform the operation.

The methods adopted by different surgeons for the formation of a new lip are various, and many of them quite complicated and difficult to perform; but the one that we shall adopt is the common operation first used by Dr. Mutter, I believe, which is easy of execution, makes a good looking lip, and is generally successful.

The annexed cut shows the different incisions and steps of the operation.



The first incision, A B, extends from one angle of the mouth to the other, circumscribing the whole of the diseased part, and should go through the entire thickness of the lip in the healthy surrounding tissue, including every particle of the diseased mass. You next proceed to

form a new lip from the surrounding healthy parts by making two other incisions, the first, C D, extending from the centre of the chin downwards and a little outward, to near the base of the lower jaw; and the second, D G, extending from the lower extremity outwards and a little upward, to near the angle of the jaw. The same incisions are made on both sides. These incisions form two quadrilateral flaps, and remaining between these you perceive a triangular portion of healthy tissue. After detaching the flaps from the jaw, you elevate them so that their lower angles, D G, come nearly to a level with the point of this triangular healthy tissue at C, and secure them in that position by a twisted suture, passing through their lower border and through this healthy triangular part. Other sutures are now applied at various points, adapting the parts as nicely as possible with a few strips of adhesive plaster, a compress and light roller.

The patient will now be removed to the ward, an anodyne administered, and at our next clinic we will see the result.

Feb. 13. Patient discharged, cured, with a good lip and very little deformity.

PROCEEDINGS OF MEDICAL SOCIETIES.

CHICAGO MEDICAL SOCIETY—MARCH, 1866.

Dr. S. Wickersham reported a case of angular curvature of the spine in an infant which had been under his observation from birth, and which had apparently enjoyed perfect health during its first year. For the next six months, although taking an abundance of food, it ceased to grow, without, however, losing flesh. There was no diarrhœa, no vomiting, no cough, no pain, in fact no other evidence of sickness, except a degree of weakness in its lower extremities. The child did not at any time stand alone or make any attempt at walking. Upon an examination of its spine when it was about fifteen months old, no evidence of disease was found. At about the eighteenth month its mother thought she observed a slight swelling over

its spine, and again requested Dr. W. to see it. There was then marked spinal disease, involving the second, third and fourth dorsal vertebræ, although the angular curvature was not extensive. The mother was *positive* that it had not fallen or received any injury. Believing that the disease was constitutional in its origin, and that scrofulosis and tuberculosis were identical, he directed the administration of such medicines as have received the sanction of many of the best authorities in the profession, cod liver oil being the chief one.

At about the twenty-first month it commenced to cough, and lose flesh; the angular curvature had become more prominent; there was dullness in the infra-clavicular region of the left side. Some weeks later a cavity was formed in the upper portion of the left lung, and undoubted evidence that the right lung was participating in the disease. At about the twenty-sixth month the hands and feet became dropsical. The child was greatly emaciated, but had at no time any diarrhœa, and took eagerly an abundance of nutritious food. It went from bad to worse, and died, aged twenty-seven months.

This case was brought to the attention of the members of the society, because a few weeks ago Prof. Bauer, of New York, delivered before the society a lecture, upon coxalgia and spinal disease, claiming in a very decided manner that they were generally the result of traumatic causes, and that the profession had heretofore entertained erroneous views in regard to their pathology, and also deprecating the use of internal remedies. That such diseases do sometimes result from blows, falls, etc., he was prepared to admit, but that the great majority of them result from constitutional causes, he should continue to think until more evidence was produced to the contrary.

No autopsy on this case was permitted; but that the child died from consumption is certain, or else rational and physical signs furnish us no knowledge of changes in the lung tissue.

Dr. McAllister related briefly the history of a patient, 17 years of age, now under his care in advanced stages of tuberculosis, who had recently suffered from coxalgia, as shown by the pain, contraction of the muscles and position of the limb, and by the crepitation readily perceived, when the patient was

placed under the influence of chloroform. He considered the disease of the hip-joint as resulting wholly from tuberculosis.

In a discussion which followed the reports, Drs. Marguerat and Holmes maintained that the cases afforded but negative evidence. There was reason to believe that the infant might have received an injury, and that the resulting abscesses might have invaded the tissue of the lungs, producing all the symptoms described.

The case of Dr. McAllister might be an exceptional one.

Weak, ill-developed children were liable to injuries of the hip and vertebræ, which might possibly result in inflammation, even more readily than in healthy subjects. Strong, robust children were perhaps more liable to injury, on account of their activity in climbing and jumping. Such children, on receiving an injury, continue to exercise, thus inducing irritation of the affected parts. The subsequent pain, want of sleep, exercise and loss of appetite, with the irritative fever and suppuration, all long continued, were sufficient to produce the peculiar cachexia of these cases.

The fact that suitable local treatment, counter-extension and support of the parts, evacuation of the purulent matter, with care as regards ventilation and diet, result so very often not only in recovery from the local disease, but also in perfect restoration to health, would seem to prove that there was much less frequently than formerly supposed, a peculiar scrofulous or tuberculous diathesis in this class of cases.

Recent investigations with the microscope seemed to indicate that in all bones collected in museums, and supposed to contain tuberculous deposit, the abnormal product was simply inspissated pus; in fact, that there was no such substance as "tuberculous deposit," distinguishable with the microscope, from modified pus.

Dr. Tucker related the history of the following remarkable case:

He was called to a patient, who had been delivered some days before his visit with the aid of forceps. He found, on examination, an immense abscess at one side of the anus, extending upwards by the side of the rectum, the external tissues

appearing ready to slough. The abscess, on being opened, discharged very large quantities of offensive pus. After the gangrenous portions had been thrown off, an extensive sinus was discovered by the side of the rectum, sufficiently large to almost admit the hand. This sinus terminated three or four inches above the anus, in a small opening into the rectum. There was also quite a large recto-vaginal fistula, near the upper end of the abscess. After dividing the septum between the rectum and abscess, as in ordinary fistula in ano, cicatrization slowly progressed and in two months was complete. The patient was then able to retain the fæces prefectly. It is a fact worthy of notice that the recto-vaginal fistula healed spontaneously.

Dr. Lyman related the case of a woman who was placed under his care in the Bellevue Hospital, New York. She had been delivered with forceps, by parties outside of the Hospital, and had suffered a rupture of the perineum and of the recto-vaginal septum, extending more than two-thirds of the distance between the anus and the fornix vaginæ. When brought into the Hospital, her condition was such as to preclude immediate operation, so she was simply placed in bed, with good diet, tonics and strict attention to cleanliness. At the end of a fortnight the rent in the recto-vaginal septum had closed as far down as the sphincter muscle. She was afterwards operated upon by paring the margins of the wound, and bringing them together with silver wire. After two such operations she was able to retain the fæces, and they passed through the anus when leaving the bowel. Feeling well and comfortable, she concluded to postpone operation upon the perineum, and left the Hospital.

In answer to a question, Dr. Fisher stated that he had observed two cases in which recto-vaginal fistula closed spontaneously.

Dr. Fisher presented a most interesting specimen of the uterus, ovaries and fallopian tubes, taken from a woman who had died from the effects of tubal pregnancy. The patient, in her fifth pregnancy, was suddenly and without warning seized with most violent pains in the abdomen, with great prostration,

and intense desire to evacuate the contents of the bladder and rectum. Although opiates and stimulants were freely administered, the patient rapidly sank and died in eight and a half hours.

The autopsy revealed the rupture of a small artery, from which had been discharged into the peritoneal cavity eight pints of blood, nearly one-half of which was coagulated. In the left tube was found a fœtus about one inch and a half in length. The uterus was of its ordinary unimpregnated size, and was not lined with the membranes of pregnancy.

Dr. Marguerat exhibited a brain taken from a girl at the orphan asylum, eight years of age, who had died quite suddenly with the following symptoms:

The patient was of a scrofulous diathesis and subject to eruptions. Early on the morning of Tuesday, while in her usual health, she was suddenly attacked with vomiting, which continued during the day; the fluids from the stomach, as the attendant stated, being mixed with blood. No physician was called during the day. At his visit in the evening, Dr. M. found the pupil dilated, pulse 100, bowels very constipated. The patient was very restless, constantly tearing the tongue, gums and lips with the fingers to such an extent as to cause them to bleed freely.

On the next morning the pulse was 60, pupils contracted. Although there had been during the night slight spasms of the muscles of the neck, they had entirely subsided; the breathing was labored; the patient died comatose twenty-two hours after the commencement of the attack.

The brain simply showed considerable venous congestion, with slightly increased quantity of the fluids in the ventricles.

Dr. Adolphus stated that he had treated a case of asthenic puerperal fever, with ten grains of sulphate of lime every three hours, with no good effect.

Dr. Wanzer read a paper on the geology, climate and diseases of Santa Clara Valley, California, where he had recently passed several months.

Dr. Holmes exhibited a quite rare specimen of tumor of the iris, with the following history:

The patient from whom it was taken, a German woman, 26 years of age, observed eighteen months since a minute white spot in the temporal side of the left iris, half way between its pupillary edge and periphery. There was no pain, congestion, loss of sight, nor even any inconvenience whatever for several months. About ten months ago the tumor had gradually encroached upon the pupil, although there was no diminution of vision and no vascularity. The iris, except at the seat of disease, had been normal in color. At this period the tumor commenced to be subject to attacks of hemorrhage. The anterior chamber during these attacks would be quite suddenly and completely filled with blood, which entirely obstructed vision. The coagulum would be absorbed in a few days, when vision became again perfect. During every attack of hemorrhage there was considerable pain and congestion of the conjunctiva. This hemorrhage occurred without any known cause, either as connected with exercise, position, straining at stool, or with the monthly periods.

On applying for advice about a fortnight since, she was recovering from an attack of hemorrhage, which had caused much greater pain than ever before, still continuing very severe in and about the eye. The tumor had in three weeks doubled its size.

The conjunctiva and subjunctival membrane were much congested, especially near the cornea and at the temporal side of the globe; the tumor covered the pupil and filled the externa two-thirds of the anterior chamber, but did not quite extend to its upper and lower limits. The remaining portion of the anterior chamber was filled with coagulum, which was, however, evidently being absorbed. The tumor pressed against the cornea and appeared to extend posteriorly, as if involving the ciliary muscle; it was of a pinkish, white lustre, and presented a structure of great delicacy, resembling the malignant growths not unfrequently observed in the fundus of the eye, in children. The cornea was slightly ulcerated or abraded in front of the tumor.

The general appearance of the growth and the hemorrhage, would lead one to suspect it was of malignant nature, although

no evidence of family predisposition could be discovered. Dr. D. Prince, of Springfield, who happened to be present at the examination, concurred in this suspicion.

The size of the tumor, the indications that it extended to the ciliary muscle, and the ulceration of the cornea, almost wholly precluded the feasibility of extracting it with its attachments, even if non-malignancy could be established. It was thought best therefore to extirpate the globe by enucleation.

The specimen here presented consists of the globe divided horizontally through its centre. The internal structure of the tumor with its encroachment upon the ciliary muscle are readily seen. Dr. W. C. Hunt, after a careful microscopic examination of the tumor, describes its structure as follows:

Irregularly shaped cells, of which the caudate form predominates, filled with nuclei and nucleoli.

Large quantities of nuclei floating loose.

In some of the cells, and also with the free nuclei, are scattered pigment cells, ("Melanoid.")

Dr. McWilliams, upon favorable report of the committee, was duly elected a member of the society.

CHOLERA.

Prof. N. S. Davis resumed the discussion of cholera. He stated very clearly the effects of caloric upon the vital affinity of the tissues of the body, producing a laxity of tissue and a sluggish performance of the processes of nutrition and secretion which favor the invasion of disease. Added to these predisposing causes, is either the absence or the presence of something in the air, which by its action upon the excito-vascular nerves depresses their vitality, so that they cease to maintain that degree of vascular tonicity which is essential to health. Hence, exudation occurs in the form of perspiration upon the surface of the body, and in the form of a flux upon the mucous surface of the alimentary canal. As the disease advances the blood is drained of its watery portion until it becomes too thick to circulate, and the phenomena of collapse ensue. In explanation of the cases of speedy death where collapse occurs early, perhaps without vomiting and purging, Dr. Davis believed that

the phenomena are referable to the overwhelming effects of a poison more than usually malignant, by which the vital affinity of the tissues is wholly arrested, producing death before the manifestation of the ordinary phenomena of the disease.

From these premises is to be deduced a treatment which shall serve to allay the irritability of the intestinal canal, to improve the tonicity and vitality of its coats and vessels, and to restrain the inordinate discharges from the blood. For this purpose Dr. Davis stated that in the stage of cholerine he was in the habit of prescribing the following mixture:

℞ Tr. opii,
Magnes. sulph.,
Acid sulph. arom., aa. ʒij.
Aquæ, ℥ij.

M. Dose, a teaspoonful every four hours. He also considered important the administration of mercurials, to correct the hepatic and renal secretions, and tonics to maintain the vitality of the tissues. Quinine should be avoided, because it is a nervous sedative, but strychnia would be found serviceable. Proper attention should be paid to diet and to drink. The practice of drinking between meals was objectionable, as also the use of alcoholic beverages. The free use of the vegetable acids would be found productive of good during the warm weather of summer. In his own experience the Professor had found simple vinegar and water a most agreeable and salutary drink.

Dr. Wickersham expressed his inability to find a theory of cholera that was completely satisfactory.

Dr. Marguerat stated that the observations which he had found recorded could not all be reconciled with the theories which had been presented to the society. It was a matter which demanded further investigation.

Dr. Lyman addressed the society, in support of the theory that cholera is the result of a morbid change produced in the watery portion of the blood, and that the phenomena of the disease are the efforts of nature to exclude this vitiated fluid from the tissues, and to eject it wholly from the system. Consequently, the proper course of treatment is that which, while

upholding the powers of the sufferer, tends to favor rather than to counteract the eliminative process. In accordance with this view the speaker condemned the use of opiates, astringents and stimulants, which can only add to the danger of the patient by impeding natural excretion, by restraining the elimination of the *materies morbi*, and by favoring its circulation among the already enfeebled tissues.

He recommended moderate warmth and quiet, to support the vitality of the system; diaphoretics, emetics and even laxatives in cases where the eliminative efforts seemed to be impeded; mercurials in the early stage, to promote excretion; chloroform to relax spasm; and above all the free use of carbonic acid water, containing a small proportion of salt, to assist in the renewal of a healthy serum.

He also dwelt upon the importance of discriminating between a vital effort which is beneficial, and the mechanical inconvenience or even danger which may result from the effort. While vomiting and purging undoubtedly are a *mechanical* source of danger to a patient, it is important to keep in mind the greater *vital* injury which must result from opposing the removal of the cause which excites such phenomena. If the blood could be speedily and effectually purified through the natural channels, a fatal result would be almost impossible, and the more alarming features of the disease would not appear. But while the ordinary excretory channels are impeded, the effort to arrest the vicarious process which is going on through the only remaining avenues of exit, can be fraught with nothing but danger to the patient.

In conclusion, the speaker presented a table of more than six thousand cases of cholera, treated in the hospitals of London and Paris, from which it appeared that the percentage of mortality increased in exact proportion to the activity of the efforts made to counteract the phenomena of the disease.

Dr. Davis opposed the idea that vomiting and purging could be anything but prejudicial to a cholera patient. He advocated the use of astringents, but admitted that the natural processes of elimination should be encouraged. He did not place much confidence in the evidence of statistics, on account of the falla-

cies to which they are liable. As for the idea that the phenomena of cholera indicate the efforts of nature to relieve itself of offending matter, he could see no evidence of the existence of such matter in the intestinal discharges, and consequently regarded them as merely the penalty suffered by the patient on account of some deviation from the conditions necessary to health.

Dr. Marguerat replied in defense of the statistics produced by Dr. Lyman, showing that they were of the most trustworthy character, having been taken by Dr. Ross from the records of the hospitals of London and Paris. The statistics most favorable to the proposed method of treatment by weak saline solutions administered freely with cold water, were obtained from the Greville Street Hospital in London, a cholera hospital where the worst forms of the disease were subjected to this treatment with the remarkable result of only 19 per cent of deaths.

SELECTED ARTICLES.

SURGERY.

The Gutta-Percha Shoe in the Treatment of Talipes. By Prof. A. C. Post, M. D.

Aout sixteen years ago I was treating a little girl for talipes varus, with a modification of Scarpa's shoes, which I was then in the habit of employing, when troublesome ulceration of the integument occurred from the pressure of the straps which were used to secure the shoes upon the feet. It was evidently a matter of necessity to omit for a time the use of the shoes, until the ulcerated surfaces should have an opportunity to heal. I was much chagrined by the prospects of a long delay in the treatment, especially as the patient resided in the country, and it was quite inconvenient to the parents to keep her for a long time in the city. I was led to reflect on the best means of preventing a return of the deformity towards its original condition, during the period when I should be obliged to suspend the use of Scarpa's shoes. It occurred to me, that a splint or shoe of gutta-percha might be applied in such a manner as to maintain the improvement which had already been gained by the treatment, if not to make some further advance towards a cure of the deformity. I accordingly contrived and applied such an

instrument, keeping it in place by means of a roller bandage. I found that by this means the feet could be maintained in a good position, with very little inconvenience to the little patient; and under appropriate dressings, the ulcerated surfaces soon healed. To my surprise, the deformity yielded more readily to the new treatment than it had done while Scarpa's shoes had been worn, and I felt no disposition to return to the use of the spring shoes after the ulcers had healed. From my experience of the benefits of the simple contrivance which I had used in the case just alluded to, I was induced to employ it in similar cases which were presented to me; and the results were so entirely satisfactory, that I have ever since employed shoes or splints of similar construction in the treatment of infantile club-foot, in preference to the spring shoes which surgeons ordinarily employ for the same purpose. The material which I ordinarily use in the construction of these shoes, is a gutta-percha sheet from a sixteenth to an eighth of an inch in thickness. It is cut of such a shape as to adapt itself to the sole and sides of the foot, leaving a space uncovered on the dorsum of the foot equal to about one-third of the breadth of the foot; it is also adapted to the sides of the leg, extending up two-thirds of the distance to the knee, and leaving a narrow space uncovered before and behind, each space so uncovered being about one-sixth of the circumference of the leg. The material is readily moulded to the shape of the limb, by immersing it for a few seconds in water, at a temperature of 100° Fahrenheit. I am in the habit of moulding the shoes thus heated, over a wooden last made for the purpose. The last is not made after the fashion of a bootmaker's last, but it is shaped like the natural leg and foot, except that the outer side of the foot is made to correspond with the inner, thus obviating the necessity of having separate lasts for the right and left foot. I have sometimes used similar shoes made of felt stiffened with shellac, as manufactured by Dr. Ahl, of Southern Pennsylvania. In order to mould the felt, it must be dipped in water at nearly a boiling temperature, and the hands require to be protected by means of cotton gloves wet with cold water. I am rather inclined to prefer the gutta-percha shoes to those which are made of felt, especially as the former material is more conveniently moulded to its proper shape.

I generally commence the treatment of infantile club-foot by the subcutaneous division of the tendo-Achillis, after which I apply a strip of isinglass plaster over the small wound of the skin. I then have the foot held by an assistant as nearly as possible in its normal position, and while it is so held, I care-

fully apply a roller bandage, so as to cover the foot and leg, beginning the application on the outer side of the ankle. I then apply the gutta-percha shoe, an assistant grasping the leg with one hand, pressing the upper part of the shoe against the sides of the limb, and with the other hand pressing the sole of the shoe against the sole of the foot. While the shoe is then firmly pressed against the leg and foot, I apply a roller bandage firmly, so as to secure it in its place. After the lapse of twenty-four to forty-eight hours, I take off the bandages and shoe, wash the foot, wipe it dry, use passive motion freely in different directions, and then reapply the apparatus as before. The application is repeated at intervals of two or three days, until the foot is brought to its proper shape, when it is put up in a laced boot, lacing to the toes, and having a firm sole and stiff sides, provided with iron braces which extend nearly as high as the knee, and secured by a strap and buckle around the upper part of the leg.

The following are, in my estimation, the advantages of the gutta-percha shoe over Scarpa's shoe, and its various modifications:

1st. Its greater simplicity, and the ease with which it is made. When the material is at hand, the shoe can readily be made in fifteen minutes.

2d. It is much cheaper than the spring shoe.

3d. It is more comfortable to the patient, being lighter, exerting a less injurious pressure, and being less likely to be kicked off a restless child.

4th. It is much less likely to occasion excoriation or ulceration of the integuments.

5th. It expedites the cure, giving a better support to the foot, and bringing it more readily into its normal position.—*N. Y. Medical Record.*

MISCELLANEOUS.

The Metropolitan Health Bill of New York.

The earnest desire of the medical profession of this city, and of the community at large, has at length been gratified by the actual passage of a bill for the protection of the health and life of the community. The urgent want for such provisions as are now embodied in the Metropolitan Health Bill has so long been felt, and so many measures have been taken by one party and another to effect the grand object, and the failures in their accomplishment have been so numerous, that it is really a matter

of surprise, even to those who were reasonably sanguine in the matter, that we now have a law which, by the comprehensiveness of its scope and the liberality of its design, is well calculated to meet all the requirements of the case. It is true that the present bill is nothing more than the modification of the original one; but, after all, the alterations which have been made can have no direct tendency, as far as we can see, in interfering with its usefulness. The length of the bill forbids us giving our readers more than a mere synopsis of its provisions.

It creates a Metropolitan Health District, which has the same boundaries as the Metropolitan Police District. This district is in charge of a Board of Health, consisting of four Police Commissioners, the Health Officer of the port, and four Sanitary Commissioners—three of whom must be physicians, and one a resident of Brooklyn. The four Sanitary Commissioners shall hold office "respectively for the terms following—namely, one for one year, one for two years, one for three years, and one for four years; and until their successors shall be appointed and qualified." The term of office of each of the Commissioners, "after the expiration of the terms aforesaid, shall be four years."

The Board is to elect its own officers, and its President shall have all the power and authority given to the "City Inspector, in the six hundred and forty-sixth chapter of the laws of 1865, (passed May 1, 1865,) in respect to the making, awarding, or executing of a contract or contracts for street-cleaning, or any matter thereto pertaining."

The Sanitary Commissioners are to receive a salary of two thousand five hundred dollars per annum, and the Health Officer and Police Commissioners five hundred dollars per annum, as members of the Board; and all are forbidden to accept any other political or municipal office, or any nomination for such office, during their terms. Any member may be removed by the Governor, under the law relating to the removal of sheriffs.

The Board of Health has authority to appoint a Sanitary Superintendent, who must be an "experienced and skilful physician," and who shall, under its direction, "exercise a practical supervision" over all the agents of the Board, except the police. This Sanitary Superintendent is to receive a salary not exceeding five thousand dollars, and is to have two assistants at three thousand five hundred dollars each, one of whom must reside in Brooklyn, and perform the duties of Sanitary Superintendent for that city. He is to report in writing to the Board weekly, or oftener, on the work of his subordinates, and the sanitary condition of the district.

There are, further, to be appointed by the Board, fifteen district inspectors, ten of whom must be skilful physicians, acquainted with the districts in which they serve; and each of these is to report in writing twice each week, "stating what duties he has performed, and where he has performed them, and also such facts as have come to his knowledge connected with the purposes of this act, as are deemed worthy the attention of said Board, or as its regulations may require of him."

The amount of authority vested in the Board is immense; absorbing and exercising as it does exclusively all the powers and duties in regard to the sanitary management of this city and Brooklyn, which have heretofore been exercised by various individuals and bodies under a number of laws and ordinances. Peremptory power is given it to remove nuisances of every description and kind; to cause the cleansing and purification of alleys, streets, sewers, tenement-houses, and water-craft, and to take such other steps as may be necessary to insure the safety from disease of those persons residing in such vicinities.

In cases of impending pestilence, or in the event of the presence of a pestilence, it shall be the duty of said Board "to take such measures, to do and order, and cause to be done, such acts, and to make such expenditures (beyond those duly estimated for or provided) for the preservation of the public health, as it may in good faith declare the public safety and health to demand, and the Governor of the State shall also, in writing, approve. But the exercise of this extraordinary power shall also, so far as it involves such excessive expenditures, require the written assent of at least six members of the Board."

The Board is to keep a register of births and deaths; to inspect weights and measures; to co-operate with the Quarantine Commissioners; to communicate important sanitary information to the health authorities of other parts of the State; to charge no fees; to enforce the laws relating to the sale of unwholesome food and deleterious drugs; to attend to vaccination, and other preventive sanitary measures; to report annually to the Governor of the State the sanitary condition of the district, together with the laws and regulations of the Board, and its expenditures; and on or before the 10th of May in each year, to publish a "Code of Health Ordinances," violations of which are to be punished by the courts by fine.

A very important and useful feature is, the keeping open of a public complaint-book, in which citizens may notify the Commissioners of any nuisances which require to be abated. By this provision the Board will be enabled in a very direct manner to take prompt cognisance of any minor matters which might,

perhaps, escape the vigilance of the subordinate officers. A sanitary engineer is to be employed, who shall survey and examine all premises and localities, and make such reports to the Board as it may order. Ample provisions are made for the employment of the necessary number of clerks and subordinates.

Since the passage of this act, on the 19th of February, the Sanitary Commissioners have been appointed by the Governor, and confirmed by the Senate. The gentlemen composing the Board have been well chosen, and, individually and collectively, are such as have the entire confidence of the profession and the community. They have already organized, have had several meetings, and have fairly initiated the great work which is before them.

Our profession is well represented in the Board by Drs. W. Parker, J. O. Stone, James Crane, of Brooklyn, the Sanitary Commissioners; Dr. John Swinburne, the Health Officer, Dr. E. Harris, the Registrar of Records, and Dr. E. B. Dalton, the Sanitary Superintendent. All of these gentlemen are acknowledged to be well qualified for their respective places. With the ample provisions of the bill, and the efficient aid which they will receive from the Police Department, and from the other members composing the Board, we have a right to expect such an enforcement of sanitary regulations as will tend to make New York a model city for cleanliness, and one of the healthiest upon the globe.—*N. Y. Medical Record*, March 15, 1866.

EDITORIAL.

BOOK NOTICES.

The Ophthalmoscope as a Means of Investigating the Diseases of the (Brain) Nervous System.

In the last volume of the "Royal London Ophthalmic Hospital Reports," (1865) is the first part of a most interesting paper, by Dr. J. H. Jackson, Assistant Physician to the National Hospital for Epilepsy and Paralysis, and to the London Hospital.

The paper is worthy the most careful attention of every physician. The author modestly disclaims all pretensions to skill or experience as an oculist, and yet has evidently made himself acquainted in no imperfect manner with the practical use of the

ophthalmoscope, in aiding him as a physician to study the diseases of the nervous system. There is certainly reason why a physician, especially interested in these diseases, should be a good ophthalmoscopist; for with the ophthalmoscope we are able to look upon the end of the optic nerve, upon and through the retina, and watch the abnormal changes as they take place in these structures, so near the brain and so intimately connected with it in their vascular system, in fact the only nervous tissues, spread out so wonderfully to our view. We can give but a few passages from this interesting paper:

"I wish to repeat what I said in a former communication—that I write as a physician, and not as an ophthalmologist. I hope this will be remembered if I am thought to treat amaurosis too diffusely in its general bearings as a symptom, or less precisely in its special one as an eye-disease. To expect from a physician a wide and advanced knowledge of a department of medicine now so special and so rapidly advancing as ophthalmology, would be, to expect what is impossible. My object in writing this article is, simply that I may contribute from my own field of clinical work a few observations on a class of symptoms, the meaning of which it is most desirable to make out for the sake of advancing our knowledge of diseases of the nervous system."

"What we generally see with the ophthalmoscope in amaurosis *in cases of disease of the nervous system*, for instance, in amaurosis complicating epileptiform convulsions, hemiplegia, etc., is a white condition of the optic discs—sometimes called the optic papilla or end of the optic nerve—white atrophy. But there are at least two kinds of white atrophy: (1st) One in which the nerve gradually whitens; and (2d) another in which it becomes white after certain acute changes. The first of these might be called nerve atrophy, and the second cerebral atrophy, but I will speak of them as No. 1 and No. 2 respectively. In No. 1 the disc is more or less white, round, and well margined, and the central vessels do not always seem to be diminished in size. In No. 2 the edge of the disc is not well defined. It sometimes gradually merges into the fundus, and is sometimes ragged. The vessels are generally diminished in size, and there is a scattering of pigment in the neighborhood of the disc."

"Another reason why the physiology of amaurosis is still obscure, is that in acute cases of cerebral diseases, in which we have the patient under our observation from first to last, the amaurosis is often overlooked. This no doubt will seem a

strange statement, but it is quite true, and it is easily accounted for. I am convinced that in all cerebral cases we should accept our patients' statements as to their power of sight with great caution, or rather we should interpret them cautiously, since it is the intra-ocular changes that we run most risk of overlooking. For not unfrequently in the early stage of cerebral amaurosis, whilst there are to be seen most marked changes in and around the optic disc, with for instance considerable effusion of blood, the patient will complain of but slight dimness, and will read small type. I had under my observation a few months ago a patient who used to read the newspaper every day, and who read small print easily in my presence, and yet had the ophthalmoscopic appearances of the acute stage of No. 2 well marked, the effusion of blood around the discs being considerable. This patient subsequently became almost quite blind, his sight eventually failing rather suddenly. He died, and I found at the *post-mortem* examination a tumor at the base of the brain."

"In cases like those just mentioned, the sight sometimes fails suddenly, the ophthalmoscopic appearances remaining nearly the same, *i. e.*, so far as I have been able to estimate them. Now it is most important to keep this in mind, or we might otherwise get a wrong date for the appearance of amaurosis as a symptom. It is well to observe, also, that with the above mentioned ophthalmoscopic signs of fixed damage to the eye, the sight fails occasionally. The patient makes some such remark as this, "I come over blind now and then." It is difficult to account for such variations, but the difficulty is no greater here than in many other organic diseases of the nervous system, which so frequently show an element of periodicity more or less rough in their symptoms. Thus neuralgic pain from fixed organic disease, say of the Casserian ganglion, comes on in paroxysms. To magnify the fact of periodicity in this kind of amaurosis, by saying that periodicity is an element in all diseases of the nervous system, does not, of course, make the cause of the phenomena more evident, but it has the advantage of enlarging our field for studying an important law. At one time I thought these variations of importance as regards the question of reflex amaurosis. I supposed they indicated that the "contraction of the vessels" was intermittent. The most marked case of intermittent vision I have seen was in a patient who had incomplete amaurosis, with a disc of the first kind. In the acute stage of No. 2, it seems to be more often due to mechanical causes, as stooping, than to quasi-physiological ones, like contraction or relaxation of the vessels.

"To be quite certain, we ought in every case of disease of the

nervous system, when our patient complains of but the slightest defect of sight, to examine the eyes with the ophthalmoscope, and even when the effect is said to be but an occasional failure, we ought not to omit to do this, as such failures do not always indicate loss of power of accommodation merely, nor what I have spoken of as Epilepsy of the Retina.

"In the out-patient's room at the Hospital for Epilepsy and Paralysis, and at the London Hospital, there is a gas-lamp for these examinations. (This lamp serves also for the laryngoscope.) When everything is thus ready, it takes very little time to make an ophthalmoscopic examination. It is quite a different thing when one has to make an examination at the home of one of our hospital patients, especially when he is very ill, awkwardly placed in bed in a confined room, and where the only light to be had is, that of a candle, held by the patient's pillow.

"I have known a physician to be in doubt whether a child was blind or not. It was certainly difficult to tell by ordinary tests, as the child was lying in bed, was paralyzed, and was very fretful. Had the ophthalmoscope been used, there need have been no doubt as to whether there were intra-ocular changes or not. I am convinced that patients frequently die blind without any knowledge of it on the part of their friends. Indeed, the record of an acute case of cerebral disease must be considered to be imperfect, if the eyes have not been examined with the ophthalmoscope."

"*It is, I submit, imperative in all cases of severe cerebral disease, at all events in cases of an acute kind, to examine the eyes with the ophthalmoscope, whether the patient complains of defect of sight or not.* I do not say that it is important as a guide to treatment, but it is absolutely necessary if cases are to be used as materials for scientific purposes. In short, in many cases we are bound to record, not only what the patient tells us, but what we see with the ophthalmoscope."

"Moreover, the above note shows that, early in a case, there may be no marked ophthalmoscopic signs to give enough definiteness to "dimness of sight" attending severe headache, to enable us to recognise in it a special symptom of cerebral disease. Now I by no means wish to imply that "dimness of sight, with a headache is a serious thing," but that it is always imperative to view this series of symptoms most carefully, and especially if the pain be severe, or unusual, and, above all, if attended by urgent, purposeless vomiting. Without coming to any positive conclusion, either to alarm our patients or to fetter our own therapeutical proceedings, we certainly ought to keep

our minds open to the fact that such symptoms do sometimes herald severe and often fatal cerebral disease.

"Severe headaches are, I think, too frequently, especially if the patient be subject to them, put down to gastric or abdominal disease. Now I think it is at least, just as likely that severe pain in the head is due to disease within the head, as that pain in any other part is due to disease of that part. And although the instances may be rare, I repeat that we do know that 'bilious' headaches sometimes herald severe brain disease. Certainly, pain in an unusual position, as at the vertex or in the temples, should receive most careful attention and wide consideration."

Thirteen cases of nervous diseases, principally cerebral, in which there were amaurotic symptoms, are related, as illustrating the importance of the subject. We look with interest for the remainder of Dr. Jackson's paper.

Intramural Interments in Populous Cities, and their Influence upon Health and Epidemics. By JOHN H. RAUCH, M. D., Chicago. 1866. Pp. 68.

This interesting pamphlet appears at a time which insures its favorable reception by a community already awakened to a sense of the necessity of hygienic reform. It presents a concise historical retrospect of the customs pertaining to sepulture, from the earliest antiquity to the present epoch. This is followed by a scientific exposition of the influences prejudicial to health which originate in the putrefaction of animal matter, and the essay is concluded by an application of the doctrines thus deduced to the existing state of facts in Chicago.

Turning from these pages to the chronicles of the ancient world, we are tempted for the moment to believe that the boasted civilization of the nineteenth century after Christ, is below the mark of the nineteenth century before Christ. One cannot but dwell with pleasure upon the age of Roman greatness, when the seven-hilled city was drained by a system of sewers which, though commenced at a period so distant that the date of their construction is lost among the myths of antiquity, were built in a manner so perfect, that even to our own

time hardly a single stone has fallen from its place: magnificent conduits, actually navigated by the inspectors; thoroughly cleansed by the unfailing torrents which poured from the distant Appenines through many an aqueduct, the work of wealthy noblemen by whom the public works of the city were undertaken without expense to their fellow-citizens.

But it is to an age still more remote than the Roman that we must look for the most perfect system of sanitary government that the world has ever known. The pages of Herodotus describe an ancient civilization on the banks of the Nile, which will never cease to excite the wonder of mankind. The Egyptian race seem to have passed through none of the progressive stages which have marked the growth of other nations, but they appear upon the stage of the world with a complete system of religion, of laws and of customs which no succeeding generation could improve. The story of those ancient dynasties and the pomp and splendor of the Egyptian hierarchy, are familiar as the annals of our own people, but the care with which the hygienic interests of the inhabitants were guarded may not be so generally known. Many of the requirements of the Mosaic law were merely intended as sanitary precautions, borrowed from the customs of the people by whom the Israelites had been held in bondage. Circumcision, abstinence from pork, the laws pertaining to the purification of the sexes, were all enforced by the Egyptian priesthood long before the days of Abraham. So also with respect to the burial of the dead: it was not sufficient that the remains of human beings should be embalmed and conveyed to the catacombs, but no animal was allowed to remain above ground after life became extinct. The bodies of cattle were interred until the flesh was consumed, and then the bones were removed with sacred rites to certain appointed receptacles, remote from the habitation of men. Dead cats, dogs and birds were all embalmed, and their mummies were consigned to the catacombs. No country was ever in a condition more cleanly and salubrious than was Egypt, before the invasion of Grecian licence and corruption. Nor were these sanitary measures difficult to sustain. The cunning priests invested all their requirements with the sanctity of re-

ligion; consequently, when the embalming of a cat or the sepulture of an owl was considered a rite most essential to procure the favor of the Deity, it was easy to enforce a law which might otherwise have been most obnoxious. As the age of superstition, however, passed away, and as men discovered that these rites possessed no real religious merit, they gradually fell into disuse; a whole nation was no longer to be seen, for three days of each month, taking clysters, emetics and purgatives; the dead bodies of the lower animals were slipped into the sacred Nile, without fear of mortally offending the divinity of the stream; and the Egyptians gradually lapsed into that state of filth and squalor which characterizes the majority of mankind.

Delivered from the fetters of superstition and despotism, the world has retrograded in respect of all sanitary observances. Nothing less than the most powerful coercion is sufficient to enforce the habit of cleanliness, and since experience has shown that the ordinary forms of government are insufficient to protect a civic population against itself, and it is no longer possible by investing the subject with the sanctity of religion, to appeal to the strongest motives of the human soul, but one resource remains. The care of the public health must be confided to a commission endowed with despotic powers, and independent of all political control. The politicians and the free people have failed to secure the best interests of the world; the era of priestly dominion seems to be no longer possible; the whole matter must be confided to the physicians, else every city will become what New York has been and what Chicago is fast approaching.

We cannot too cordially commend the essay of Dr. Rauch to the general public as well as to the medical profession. His remarks upon cholera are well timed and eminently practical. If the pestilence should invade our country, we trust that his admirable idea of quarantine hospitals on the lines of railway outside of the town will be acted upon by the authorities who have the matter in charge.

A liberal price will be paid for the following Nos. of the Chicago Medical Journal: Nos. 1 and 4, of Vol. 8, whole series. Address Editors Journal.

CODEIA.

We do not presume in these few lines to afford the readers of the Journal any new ideas regarding Codeia. Its peculiar effects, as shown by experiments, are sufficiently well described by several authors. We feel certain, however, that many physicians, from disuse of the remedy in consequence of its high price, have neglected to prescribe it in cases where it may be used with great advantage. And it is here our object simply to urge the trial of Codeia as an anodyne, where it is known by experience that other forms of opium produce very unpleasant effects. We have recently observed the most happy influence of the remedy upon four patients, who often require anodynes for different painful affections, and who always suffered extremely from the secondary effects of morphine and opium however given.

The dose of Codeia may vary, according to circumstances, from gr. ½ to gr. j. It is worthy of notice that the system becomes sooner accustomed to large doses of this anodyne than to corresponding portions of morphine.

The contribution on the use of Tannin in pruritus vulvæ, page 560 of the last volume of the Journal, should have been accredited to Dr. G. F. Keiper, of Quincy, Indiana. In each of the last two lines of the page, the quantity should be ℥j, instead of ʒj.

Dr. H. M. LYMAN has removed his Office to 169 Dearborn Street, opposite the Post Office.

WANTED TO PURCHASE, by a Physician, a small stock of drugs, with an established trade, in a flourishing town on a railroad, in Illinois. Those wishing to sell can address Dr. Z. P. H., care Dr. R. M. Lackey, 169 South Dearborn Street, Chicago.

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This preparation presents to the Profession a combination of Iron, Phosphorous and Calisaya, in which the nauseous inkiness of the Iron and astringency of the Calisaya are overcome, without any injury to their active tonic principles, and blended into a beautiful amber-colored cordial, delicious to the taste, and acceptable to the most delicate stomach.

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A small DRUG STORE and Practice of a retiring Physician—one of the best in the State of Iowa. Capital required about $1500. Enquire of Junkerman & Haas, Dubuque, or Dr. Wm. H. Francis, Cascade, Dubuque co., Iowa.

THE

CHICAGO MEDICAL JOURNAL.

VOL. XXIII. MAY, 1866. No. 5.

ORIGINAL CONTRIBUTIONS.

The Use of the Thermometer in Clinical Medicine. By E. C. SEGUIN, M. D., of New York City.

Believing that the matter may prove of interest, and that the attention of practitioners may thus be called to a means of diagnosis and prognosis not second in importance to any single one hitherto employed, the following cases of pneumonia, observed and treated in the New York Hospital during the month of January, 1866, are given as illustrative of the application of thermometry in disease; together with an abstract of the highly interesting and elaborate paper of Dr. L. Thomas, of Leipzig, on the thermal phenomena of pneumonia. ("Ueber die Temperatur Verhaltnisse bei crouposer Pneumonie," Archiv der Heilkunde; Bd. V, S. 30–86.)

The cases are accompanied by a diagram, *fac simile* of the tables of "Vital Signs," used at the bedside to make the daily record of temperature, pulse-beats and respirations. This one only differs from ours in that on it are represented the curves for three cases, whereas usually but one case is put upon a table. No further explication of the diagram is necessary, except to state that the heat is registered in decimal parts of degrees; the pulse and respirations, of course, by whole numbers.

Two observations are found in each daily column, one in the morning made at 9.10 A. M., one for the latter part of the day made at 4.15 P. M.

For want of space the cases are much abbreviated; the physical examinations being nearly omitted. This may be justified by stating that the diagnosis in each case was verified by the attending physician, Dr. Wm. H. Draper, and that careful daily examinations were made by Dr. J. Haven Emerson, the talented house physician of the Hospital.

CASE I. G., æt. 28. Steamship fireman.

Admitted Jan. 11th, 1866. Was taken ill on 6th with chill, pain in right side, etc.

On admission, considerable febrile disturbance of rather low type; tongue much coated, inclined to dry in middle; general condition fair. Physical examination reveals dulness, bronchial breathing and voice, and crepitant rale over limits of right upper lobe; most marked in supra-spinous fossa. Expectoration characteristic. Is ordered decubitus, an oiled silk jacket, at night a Dover's powder, and

℞. Pulv. ipecac, gr. ij.
Liq. ammon. acetat., ℥iv.
M. Cap. ℥ss. q. 4. h.

Jan. 12. Consolidation progressing; expectoration thin, containing some pure blood; had epistaxis yesterday; tongue rather dryish and brown coated. Ordered, Sherry wine, ℥ vi, to be taken with milk; cont. mixt.

Jan. 15. Defervescence occurred during last twenty-four hours, with a fall of six degrees. (See table.) General bronchitis has supervened, and masks the physical signs in the affected lobe. Tongue is quite moist and cleaner. Stop mixt.

Jan. 17. Quite convalescent. Ordered, continue wine and take quinine sulph., gr. ij, t. i. d.

Jan. 27. For a week has sat up and been about. Bronchitis is gone, and he is discharged cured.

CASE II. R. S., æt. 26. Seaman.

Admitted Jan. 16th, 1866, having been ill four days. Sickness began with chill, pain in right side, fever and cough.

On admission he presents all the objective signs of pneumonia, involving the right lower lobe, in stage of red hepatization; expectoration rust-colored; general condition good. Ordered, decubitus, at night min. xv of Squibb's liq. opii co., and

℞. Pulv. ipecac, gr. ij.
Liq. ammon. acetat., ℥iv.
M. Cap. ℥ss. q. 4. h.

An oiled silk jacket, lined with cotton, was applied over chest.

Jan. 21. Fall in evening temperature indicates the limitation of the disease. A pleuritic friction sound is heard at angle of scapula. Cont. treatment.

Jan. 23. Yesterday complete defervescence did not occur, because the inflammation extended to the upper lobe of same side; tympanitic dullness is found over angle of scapula. Defervescence did occur this A. M. Yesterday, patient had a little epistaxis and diarrhœa, which latter was checked by suppos. Opii, (gr. ij.) p. r. n. Expectoration less colored, more abundant and muco-purulent. Cont. treatment.

Jan. 24. Vital signs down to normal standard.

Jan. 31. Resolution took place rapidly; patient has been up for a few days. Some dullness remains at apex and over lower lobe, and at angle of scapula are still heard pleuritic friction sound, some subcrepitant rale and broncho-vesicular breathing.

Feb. 5. Patient is discharged, cured.

CASE III. S., æt. 19. Coal-passer on steamship.

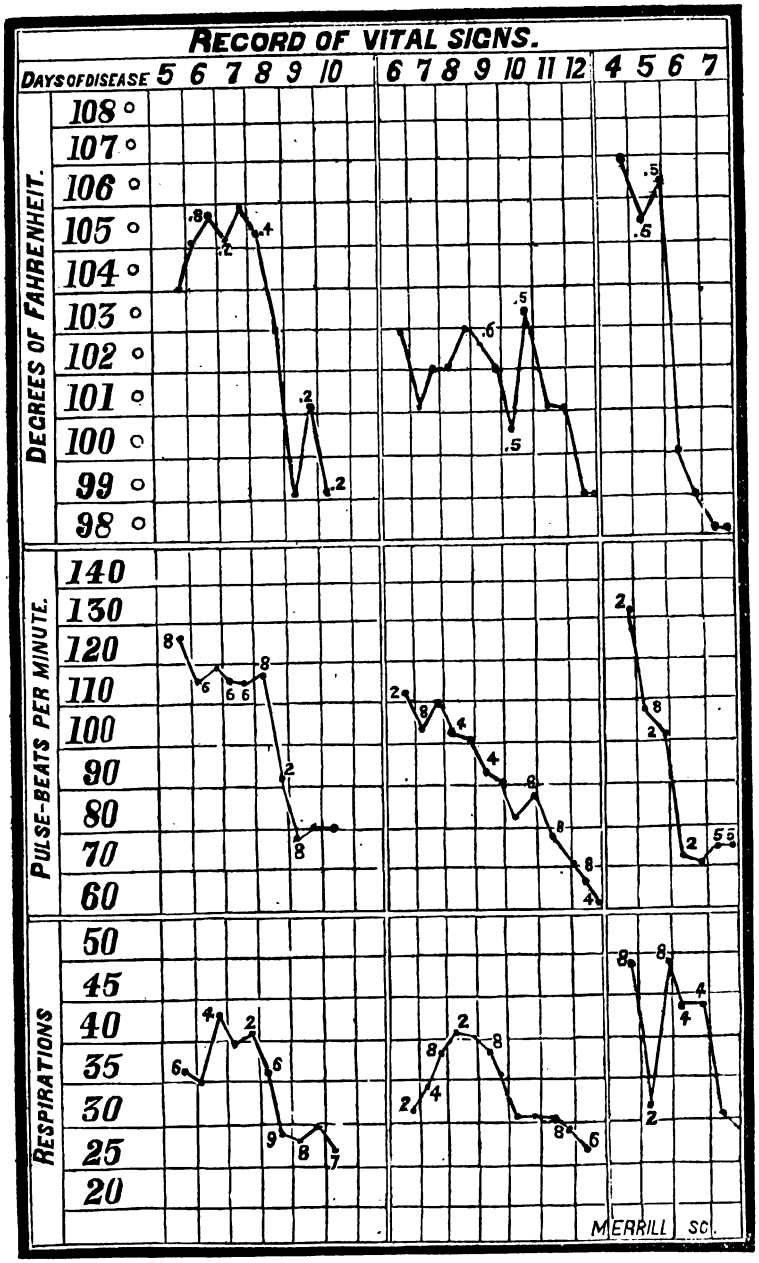
Admitted Jan. 25th, 1866. Illness began on 21st with chill, pain at lower ribs of right side, cough and fever.

On admission there is much pain, great febrile movement and dyspnœa; expectoration rust-colored, very characteristic; patient presents all physical signs of inflammation involving the right upper lobe. General condition excellent, except previous malarial poisoning. Ordered, an oiled silk jacket, a hypodermic injection of morphia (min. x of Magendie's sol.) and mixture used in cases above, in same doses. Decubitus.

Jan. 27. There is complete hepatization of affected lobe. Defervescence occurred during last twelve hours, with a fall of six and a half degrees. Had epistaxis yesterday. Cont. treatment.

Jan. 29. Subcrepitant rale (rale crepitant redux) is heard over upper lobe; expectoration muco-purulent, hardly at all colored; no fever. Stop mixt.

February. Patient convalesced very rapidly, and only remains in hospital for treatment of malarial element.


RECORD OF VITAL SIGNS.
DAYS OF DISEASE 5 6 7 8 9 10 6 7 8 9 10 11 12 4 5 6 7
DEGREES OF FAHRENHEIT.
108°
107°
106°
105°
104°
103°
102°
101°
100°
99°
98°
PULSE-BEATS PER MINUTE.
140
130
120
110
100
90
80
70
60
RESPIRATIONS
50
45
40
35
30
25
20
MERRILL SC.

In a few words these three cases may be summed up.

But first, the word "defervescence" used in these histories and in the abstract below needs definition. It is new to American medical literature, having first been used by the learned professors of the German schools, to express in one word the cessation or subsidence of the febrile phenomena of disease. It has been very recently adopted in England, and finds a prominent place, as well as the entire subject of thermometry, in Aitken's "Science and Art of Medicine."

In reading the cases and looking over the table of vital signs, the first thing to be remarked is, at what a late period of the disease the patients were received; the most recent on the fourth day. This, however, is a difficulty which attends all investigations made upon hospital subjects; but, fortunately, in other places the disease has been studied so early as to determine very conclusively that the increase of fever is rapid, and that a very high temperature may be expected within the first twelve hours. In cases I and III, which were typical of simple acute inflammation of one lobe, the temperature, high at the the beginning of the observation, continued to rise, or did not fall except in so far as the regular morning remissions were concerned, until a certain point of the disease had been reached, the ninth day in one case and the fifth in the other, and not till the ascending pathological changes had been wrought; in other words, not until hepatization of the implicated lobe was fully established. This fall in heat, pulse and respiratory movements (defervescence) was complete in case III, the thermometer never again rising above 98.° In case I, the same was true, with the exception of a single moderate elevation in the evening of the tenth day. Case II was remarkable for the low intensity of the fever. The defervescence was partially effected on the ninth and tenth days, but during the evening of the latter an alarming increase ot 3° led us to suspect that the disease had invaded a second lobe, when it will be noticed that the pulse and respirations (80 and 30 respectively) gave no warning. Physical examination showed that the thermometer was right. The next morning defervescence occurred fully, and finally in the course of two days. It may also be seen how

accurately the estimation of the heat determines the cessation of ascending pathological changes, and marks the beginning of those processes by which the vital actions restore the parts affected, and the system generally, to a state of health. That the third period of pneumonia is a resolution, is confirmed by the fact that, in normal cases, the temperature never rises above 99° after hepatization is complete. Were it true that this disease ends by a suppurative stage, the thermometer would doubtless remain high until the process was completed.

In these two points the diagnosis of disease and of complications, and reliability as an element of prognosis, lies the great value of this means of observation. To go into all the facts necessary to sustain these positions, would require more space than can be allowed to a hospital report intended simply to call attention to, and invite trial of, the matter in question. Suffice it to say, that Prof. Wunderlich, of Leipzig, has, with others, so thoroughly investigated the subject before giving it to the profession, that he made no less than half a million careful observations, and ascertained the temperature-variations of nearly all diseases so accurately, that his pupils can, by merely looking at the diagramatic record of a case, almost always correctly diagnosticate the disease without having seen the patient or heard of any other symptoms. He and many other leading physicians make constant use of the thermometer in private practice. The limited trial made in this Hospital has not at all lowered the expectations raised by reading the published accounts; in many cases a diagnosis has been arrived at, and a complication detected long before the other objective signs would have enabled us so to do. More especially are the distinctions of fevers, into the great types of typhus, typhoid, remittent and intermittent, clearly indicated and not to be mistaken. A last point urged is, that the surface heat, as measured in the axilla, is not liable to variations from the nervous, emotional causes which render the pulse and respiration so very changeable and unreliable. Being the direct result of the molecular changes produced by pyrexia, (although the precise relation of the degree of heat to the amount and proportions of the substances, resulting from retrograde metamorpho-

sis, is not yet ascertained,) it cannot be immediately affected by causes acting through the senses, which so disturb other objective signs, for instance, the sudden arrival of the physician, of a friend, of news, the movements frequently necessary to the comfort of the patient, or to facilitate examination, etc.

The whole matter of the utility of medical thermometry is founded upon the fact, that the normal temperature of the human body is invariably fixed within certain limits. Very numerous observations by competent observers have determined this. The following are those of Prof. Traube, of Berlin; the average of many studies of healthy adults at fixed periods of the day, taken in axilla:

98.24°	at 7 A. M.	
98.69°	at 10 A. M.	After breakfast.
98.65°	at 1 P. M.	
98.78°	at 5 P. M.	After dinner.
98.24°	at 7 P. M.	

As to daily practice with the thermometer, the instrument should be an accurately made one, perfect in every respect. Those used abroad (not at present to be had in this country) are graduated to fifths and tenths of degrees, and should be preferred. However, one graduated to degrees only will suffice, if greater care be exercised in reading off the mercury, and a practiced eye may even estimate one-fourth of a degree on such a scale. In all cases the thermometer should have an outer glass casing, to protect it from injury and external influences.

The bulb is to be inserted in the axilla, just beneath the fold of the pectoralis major muscle, not too deeply, the forearm of that side carried across the chest, and the elbow secured by an assistant, or by the patient's other hand. It is left *in situ*, carefully isolated from all clothing, and in perfect contact with the skin, for eight or even ten minutes, being looked at three or four times, the last two determining whether the column of mercury has ceased to rise; the degree (and fraction) is then read off and registered. While waiting, the physician has time to count and record the pulse and respirations, and even to proceed with many other points of investigation. If time be precious, the bulb may previously be heated about to the expected

heat, and then inserted, when three or five minutes will be enough for a correct estimate. With the exception of the anus, the axilla is found to be the most reliable locality for the purpose.

For further details and general information, the reader is referred to the *Archiv der Heilkunde*, of Leipzig; to Aitken's *Science and Art of Medicine*, and to articles in the London *Medical Times and Gazette*, for 1858 and 1861.

(ABSTRACT.)

Early observations:

102.5°	observed	4	hours after	first symptoms.
104.9°	"	9	"	"
104.4°	"	12	"	"
105.1°	"	23	"	"
105.8°	"	36	"	"
106.5°	"	24	"	"

Variations of temperature in regular cases:

Minimum in morning, maximum in afternoon, and again after midnight a decrease.

Types of fever:

1st. In no case purely continued.

2d. Some cases with small differences between the morning and evening measurements, (°.45 to °.5,) have very seldom been observed, and only for a single day.

3rd. In the vast majority of cases the differences amounted to °.9 to 2°.

4th. More than once differences of 2.5° have been noted.

5th. A few cases in which almost complete remissions occurred.

The *highest point of fever* may be known by an extraordinary elevation, or by a great fall in the temperature, compared with preceding observations.

The *termination of the fever* (defervescence) generally occurs within forty-eight hours, the temperature sinking to the normal standard. The *days of defervescence* have been carefully noted.

46 CASES BY THOMAS.		107 CASES BY ZIEMSSEN.	
Days.	Cases.	Days.	Cases.
2d,	2	2d,	0
3d,	6	3rd,	9
4th,	6	4th,	8
5th,	11	5th,	31
6th,	5	6th,	5
7th,	10	7th,	35
8th,	4	8th,	4
9th,	0	9th,	9
10th,	2	11th,	8
		13th,	3

Thus out of a total of 153 cases, 45 turned on the seventh day and 42 on the fifth. Ziemssen states that in cases in which more than one lobe is involved, the defervescence is likely to be put off until the eleventh or thirteenth day. Thomas is, however, inclined to doubt this, for in 18 of his cases, in which more than one lobe was affected, he observed but two in which the pyrexia did not subside by the seventh day; and those on the tenth.

Defervescence is affected by the lobes involved as follows:

Right upper lobe—1 on second day; 4 on seventh; 1 on eighth.
Right lower lobe—2 on fourth; 4 on fifth; 2 on sixth; 1 each on seventh, eighth and tenth.
Left lower lobe—1 on second; 5 on third; 2 on fourth; 6 on fifth; 1 on eighth.

Temperature towards fatal termination.

Majority of cases ending in delirium:

2 on sixth day, 106.5° and 105.6.°
1 on seventh, 109.4.°
2 on eighth, 106.4° and 104.9.°
1 on fourteenth, 108.9.°

In one case ending with furious delirium, hallucinations, trismus and tetanus, an elevation of 6.9° occurred in six hours. In three cases dying of suffocation, (asthenia and apnœa,) there was no elevation toward the agony; in two there was great emphysema, and the temperature remained between 101.3° and 103.5°; in the third, accompanied by a fever of great regular remissions, the last estimate was 99.5.°

Clinical Lectures on Diseases of the Eye. By E. L. HOLMES, M. D., Lecturer on Diseases of the Eye in Rush Medical College, and Surgeon to the Chicago Charitable Eye and Ear Infirmary.

MYDRIASIS, MYOSIS, SPASM AND PARALYSIS OF THE ACCOMMODATIVE MUSCLE AND ASTIGMATISM.

GENTLEMEN,—Mydriasis is characterized by a marked dilation of the pupil, without any apparent abnormal changes in the tissues of the eye. In typical cases, the pupil of one or of each eye becomes dilated to such an extent, that the iris is scarcely perceived behind the limbus conjunctivæ. Sometimes the dilated pupil is oval or irregular; it is almost entirely if not quite uninfluenced by the strongest light, or by fixing the eyes upon near objects. Mydriasis is often, perhaps usually, accompanied by paralysis of the ciliary muscle, so that the eye cannot accommodate its focus for vision of near objects. In some cases the ciliary muscle is unaffected, as can be shown by placing an aperture in a thin disc of metal before the pupil, to exclude the undue amount of light which enters the dilated pupil, when it will be found that the eye can see near objects as well as distant objects. The affection is usually confined to one eye. To such an eye, objects often seem smaller than they really are. This apparent diminution in the size of objects, the dazzling caused by too much light entering the eye, and usually the inequality in the foci of the two eyes, produce the chief inconvenience of this disease. The causes of mydriasis are often so obscure, as to evade the most careful scrutiny.

Paralysis of the branches of the third pair of nerves which supply the annular fibres of the iris, or irritation of the sympathetic nerves, which supply the radiating muscles, may produce the disease. In these cases the primary cause may be masturbation, irritation of the bowels from the presence of worms or crude substances. Belladonna and other drugs taken internally or applied near the eye produce, as you well know, dilation of the pupil. The diagnosis between mydriasis, produced by belladonna and that caused by other agents, is not only difficult but sometimes impossible. Malingering soldiers, who have been taught the effects of atropine, may long keep up

deception if they are cunning enough to conceal the drug from their surgeons. Soldiers have been known, for instance, to conceal some form of belladonna under the toe-nail, or in a small tube attached to a thread and introduced into the rectum.

The prognosis in cases of mydriasis is generally favorable.

In regard to treatment there is but little to be said with certainty.

It is of great importance to seek the cause and endeavor to remove it.

Extract of calabar bean has been in some cases known to act favorably in causing the pupil to contract. In other cases it has proved inert.

From the fact that the pupil contracts from irritation of the fifth pair of nerves, as in certain ulcerations of the cornea, or when foreign substances are introduced under the lids, some practitioners have been led to produce minute ulcerations artificially, by the application of solid nitrate of silver to the conjunctiva near the cornea. Occasionally, this plan has seemed successful.

Electricity, strychnia, ergot, methodical exercise of the internal recti muscles, in fixing the eyes upon near objects, have been found beneficial.

Myosis is that condition of the eye, in which the pupil remains for a greater or less period abnormally contracted, without apparent change in the internal structures of the eye. The pupil may be exceedingly minute, and almost wholly uninfluenced by atropine, or by absence of light. As little light can enter the pupil, the impression on the retina is diminished, and objects appear less brilliant than when the pupil is of its normal size.

Irritation of the third pair of nerves, paralysis of the sympathetic branches of the iris, habitual use of the eyes upon near objects, as with jewelers and engravers, constipation, tumors in the neck pressing upon the sympathetic nerve, have been recognized as causes of myosis. The exact condition of the accommodative apparatus has not been accurately determined.

You are well aware that the calabar bean has been found,

when applied to the healthy eye, to produce extreme contraction of the pupil, and also to render the eye myopic.

The treatment of this disease consists almost entirely in removing its cause. Atropine is almost useless.

If the contraction is excessive and other treatment hopeless, the operation for artificial pupil is indicated.

Paralysis of the ciliary muscle is characterized by the impossibility of accommodating the eyes for near objects. The distance, however, at which objects can be seen, will be different in different eyes, according as they are short-sighted or hypermetropic. The paralysis may be partial or total, and usually depends upon diseases of the brain or spinal cord, upon uræmia, diabetes, lead poison and excessive use of alcohol. It is usually attended with dilatation of the pupil.

The influence of belladonna in producing paralysis of the accommodative muscle, has already been described in a previous lecture. The treatment of this disease must be conducted upon the same general principles which guide us in the management of other forms of paralysis. Much had been expected from calabar bean, although little has been really accomplished by the remedy.

Spasm of the ciliary muscle produces an effect just contrary to that of paralysis. The accommodative apparatus is spasmodically adjusted for the nearest object it is capable of seeing distinctly. This is often a result of irritation of the cornea and conjunctiva, as in certain forms of inflammation, and is accompanied with spasm of the orbicularis and of the annular fibres of the iris, and with photophobia. Occasionally it is observed without these symptoms.

The treatment of this affliction is often unsatisfactory. If possible, irritation should be removed. Exercise of the eye with the use of convex lenses, is sometimes of benefit. Since a convex lens placed before the eye, when adjusted for near objects, tends to bring the focus of the rays of light in front of the retina, there will be an effort on the part of the adjusting apparatus to overcome the effects of the conevx lens, by flattening the crystalline lens. This can only be accomplished by a relaxation of the ciliary muscle. Belladonna

tends to overcome this spasm, but is often employed without any good results.

Mydriasis, myosis, paralysis and spasm of the ciliary muscle, are comparatively rare diseases. I have merely alluded to the principal facts connected with them, because they may occasionally come to your notice, and especially because these pathological conditions serve to enlighten us very materially in reference to the physiology of accommodation.

The older ophthalmologists were in great doubt regarding the power of accommodation. Many believed it depended upon the action of the recti muscles.

We have seen that paralysis of the accommodative apparatus, whether idiopathic or caused by belladonna, spasm of the accommodative apparatus, whether idiopathic or caused by calabar bean, produce respectively such changes that the eye is adjusted to distant or near objects only—the muscular fibres are unable either to contract or relax respectively. There is an analogy between these two conditions, and paralysis and spasm of the flexor muscles of the limbs. These different pathological conditions of the adjusting apparatus may exist, and yet the recti muscles may rotate the eyes as freely as in perfect health, showing that accommodation is independent of the recti muscles. You remember that I called your attention in a previous letter to the fact, that total paralysis of the recti muscles could exist without destroying the power of accommodation.

Astigmatism. In the normal eye the surfaces of the cornea and crystalline lens possess almost absolutely the same convexity in their horizontal, perpendicular and intermediate diameters, (Meridians.)

In certain cases the cornea, and less frequently the lens, is much more convex in one diameter than it is in another. This condition is termed *astigmatism.* The surface of the cornea is ellipsoidal. It was quite well described years ago. Donders and others, however, have investigated the subject more fully. We now find it embraces quite a long and interesting chapter in ophthalmology. When astigmatism exists in a marked degree, there is great indistinctness of vision. A square or a circle will appear respectively oblong or elliptical. As you can

readily understand, if the eye is adjusted in such a way that the most convex portion of the cornea causes the rays to come to a focus *on* the retina, the less convex portion must come to a focus *behind* the retina. Hence, there will be this form of distortion in the appearance of objects, as, for instance, a square: The two opposite sides will appear parallel and quite distinct, while the other two sides will be ill-defined and irregular.

To such a degree are some eyes astigmatic, that a luminous point appears as a line.

The diagnosis of this condition of the eye usually rests upon the following modes of examination: The patient should be directed to look at some suitable object, such as a white square or circle on a dark ground, placed at a convenient distance. The character of the distortion will lead one to suspect the presence or absence of astigmatism.

If a thin disc of metal, in the centre of which a very narrow slit not more than one-half a line in length is made, be placed close to the cornea, it will be found, on looking through this opening and rotating it, that there will be a certain position of this opening in which vision will be most distinct, and when turned 90° further, vision will be most indistinct.

An examination with the ophthalmoscope is of service in the diagnosis of this deformity, since the rays of light, on passing through the astigmatic cornea, changes the apparent form of optic papilla from that of a circle to that of an ellipse. It should, however, be remembered, that the papilla is sometimes found elliptical in health.

Astigmatism may be congenital or acquired. It is usually most apparent in the cornea, although it may be found in the lens.

The causes of acquired astigmatism are chiefly ulcerations and injuries of the cornea, which on healing produce contraction of the tissues and consequent inequalities of curvature.

The extraction of cataract is sometimes followed by sloughing of the cornea. Cicatrization often results in more or less differences of curvature.

The treatment of astigmatism consists almost entirely in the use of concave or convex cylindrical lenses. By means of these

lenses vision may be very much improved, and in favorable cases even restored to normal distinctness.

The lenses are most applicable in regular astigmatism, where the surface is ellipsoidal. In irregular astigmatism, where the cornea is, for instance, conical, or where its surface has a curvature similar to the surface of an egg, divided parallel to its long diameter, they will, at best, but partially improve vision.

The Pathology and Treatment of Cholera. By HENRY M. LYMAN, M. D., Pathologist to the Cook County Hospital.

(Read before the Chicago Medical Society, March 30, 1866.)

In this essay I can claim nothing that is new. Resulting from an independent effort to examine the phenomena of cholera in the light of physiology and pathology, I am not surprised, but am pleased to find that my conclusions have been anticipated by others, to whose writings my attention has been directed since the completion of this study. "There is nothing new that is good; nothing good that is new."

For the sake of clearness in argument, I shall assume that the symptoms of cholera are produced by the action of a positive agent which operates in the blood, vitiating its fluid portion and exciting the system through the fibres of the ganglionic nerves, to an effort for the elimination of the intrusive poison.

That cholera is essentially a disease which consists in contamination of the blood, seems to be indicated by all its symptoms. Vomiting, purging, sweating, cramps, collapse and reaction are phenomena characteristic of elimination, whether they be caused by an over-dose of podophyllin, or by a draught of cholera poison. These are not vague and purposeless efforts, but are possessed of a significance that is most instructive.*

* The analogy which exists between the phenomena of all diseases should also be kept in mind. In pneumonia the exudation which is poured into the air-cells affords vital relief by emptying the distended capillaries. The mechanical difficulties which grow out of this exudation are probably less prejudicial than the consequences which would be manifested, were exudation from the vessels during inflammation rendered impossible by any cause.

I think we need not hesitate to affirm the proposition that the symptoms of cholera are caused by the violent efforts of the system to rid itself as speedily and as effectually as possible of the fluid portion of the blood.* In addition to the phenomena occasioned by this eliminative effort, must be reckoned the secondary and consecutive phenomena arising from an arrest of the functions of nutrition, secretion and excretion, which is unavoidable under the conditions most favorable to such an extraordinary method of elimination.

Prof. N. S. Davis has fully shown how caloric acts as a predisposing cause of watery effusions from the blood, by depressing the integral vitality of the tissues, and by producing a general laxity highly favorable to perspiration and to intestinal flux. The action of caloric alone, however, will not suffice to produce the disease in question. In cholera morbus, bilious diarrhœa and Asiatic cholera, the symptoms of the disease do not manifest themselves until the blood has become vitiated by the introduction of some foreign agent, and by the retention of excrementitious substances. To eliminate this *materies morbi* is, then, the effort of nature; and the manner in which the process is effected, is an evidence of the wonderful skill with which the animal organization is contrived. A temporary derangement of the circulation is made the means of purifying the blood. In a state of health the tonicity of the blood-vessels is maintained, and their calibre is regulated by the action of the branches of the ganglionic nerves which are distributed to their walls. Under the influence of the depressing causes which, during the prevalence of certain atmospheric conditions, tend to diminish the integral vitality of all parts of the system, these ganglionic nerves undoubtedly suffer with the rest of the tissues. Now it is well known that debility is the parent of morbid susceptibility and morbid irritability. During health the passage of healthy blood excites these nerves to a degree that influences the walls of the blood-vessels sufficiently to maintain that degree of tonicity which

* That the poison resides in the serum, is rendered probable by the fact that it is the watery portion of the blood rather than its solid constituents, which is ejected from the system. In yellow fever the red globules are affected, as appears from the amount of hematoidine in the evacuations.

is most subservient to healthy circulation. But when, as a consequence of the impaired nutrition, secretion and excretion which result from a diminution of integral vitality, or when, as a consequence of the intrusion of a poison from without, the blood becomes vitiated, it fails to communicate to the ganglionic nerves that healthy stimulus which is essential to the proper calibre of the blood-vessels. Subsequent phenomena indicate that one result of this morbid irritation is a spasmodic action of the muscular coat of the smaller ramifications of the blood-vessels,—a condition of which the effect is naturally more conspicuous in the arterioles than in the veinules, because of the superior muscular organization of the arteries. That this spasmodic muscular action is perfectly compatible with debility, is proved by the powerful muscular contractions which occur in cholera and in tetanus, in delirium tremens, and in many other diseases where vitality is at the lowest ebb. In addition to this, in cholera the vigor of the heart is diminished by the failure of the innervation derived from the pneumogastric nerve, a circumstance which is proved by the loss of the voice, and the acceleration of the movements of the heart which occur during the disease;—precisely the effects produced by section of the pneumogastric nerve at its origin.

Having then a condition characterized by arterial debility with consequent irritability and diminished cardiac vigor, the blood is forced with less power from the heart, so that it moves in smaller quantity from the right to the left side of the heart, and the venous system becomes unusually gorged with blood. When this derangement is not excessive, the over-loaded veins of the bowels obtain relief by moderate exudation into the alimentary canal. This is the stage of diarrhœa, known, in the absence of specific causes, as bilious diarrhœa. When the system is laboring under the influence of cholera poison, this stage of the disease is known as *cholerine*. It is essentially a recuperative effort, and tends to promote the relief of the patient. But when the amount or the intensity of the poison is too great for elimination by this gentle process, more violent measures become necessary. Responding to the increased irritation produced by the circulation of vitiated blood, the arterioles urge

on the blood more effectually, while the heart, more completely deprived of the influence of the pneumogastric nerves, and depressed by over-distention, beats more frequently and with less vigor. The veins are not emptied as they should be in health, partly because of the diminished strength of the heart, and partly because the current of blood is materially obstructed in its passage to the lungs. That this is not a mere matter of theory, is shown by examination of the bodies of those who die of cholera before the stage of reaction occurs.* The system seems intolerant of the blood, and refusing to receive it, attempts to confine the fluid within the venous cavities, where, physically speaking, it is the farthest removed from the tissues of the body. At the same time so greatly is vitality depressed, that the walls of the venous capillaries and venules can no longer resist the pressure of their contents, and the watery portion of the blood is poured forth upon the surfaces within and without the body. Extending its influence to the spinal nerves, the morbific agent excites muscular contractions which serve to force towards the central cavities, the blood from the deeper and more distant portions, where it would otherwise linger in the capillaries and more certainly poison the system.† Contraction of a kindred nature occasions the expulsion of the fluids that are poured into the alimentary canal. Hence, the vomiting, purging, sweating and cramping which characterize this stage of the disease. At the same time the functions of the liver and kidneys are impeded; not because their continuance would be prejudicial, but because, having been designed for the performance of certain functions under the ordinary conditions of health, it is mechanically impossible for these organs to continue their operations under those conditions

*The lungs are so bloodless that Dr. Metcalfe, of New York, regards this as the cause of the coldness of the breath of a patient in collapse. This is partly true, but the principal cause of the diminution of temperature is to be found in the suspension of cell-activity throughout the system, which occurs in the presence of the poison which causes the disease. As soon as this poison has been sufficiently eliminated, the cells resume their activity, and the temperature of the body rises, even for a considerable time after the death of the patient.

†This statement accords with the current opinion relative to the production of muscular motion. The more rational views of the causation of muscular action, advanced by C. B. Radcliffe in his lectures on pain, paralysis and epilepsy, serve to explain the phenomena of cramp in cholera in a manner much more consonant with the ideas which have been proposed above. He has shown that convulsions, cramps, and muscular motion in general, can be produced by impeding the supply of arterial blood, by the circulation of vitiated blood, (which is equivalent to the arrest of arterial supply,) and by a diminution of nervous influence;—three conditions which are present in cholera.

of intense venous congestion which are most favorable to the speedy elimination of the cholera poison. As the effect of this agent becomes more fully developed, the exclusion of the blood from the tissues is made more perfect by the more violent operation of the causes which have been described. The patient becomes livid, pulseless, shrivelled, collapsed. The blood can with difficulty reach the lungs, and the small quantity which finds its way to the left side of the heart is hurried back into the venous cavities, where it is least innocuous to the system. Thus the venous pressure is maintained until a sufficient portion of the vitiated fluid has been ejected from the body. If the vital powers of the system have been too far overcome in this process, death may occur at this stage; but if the vitality of the tissues still remains, reaction now begins, and its progress and completeness depend, not only upon the degree of unimpaired energy, but upon the extent of the injury which may have resulted from the accumulation of excrementitious matters during the suspension of the hepatic and renal functions. Relieved in great measure of the irritating fluids which have excited arterial spasm, the heart receives new innervation from the pneumogastric nerves, and the walls of the arterioles become relaxed even beyond their natural calibre. Circulation is restored; the veins are emptied sufficiently to arrest the morbid transudation of their contents; secretion is renewed, and recovery commences. The subsequent fevers, congestions and inflammations which so often delay or prevent recovery after the establishment of reaction, are only the natural consequences of the mechanical violence to which the system has been subjected by the choleraic paroxysm, associated with imperfect or excessive reaction, and the impaired nutrition resulting from the vitiated condition of the blood. These sequelæ of the disease need not be considered any farther in this connection.

Such then, is the theory of cholera. In opposition to this theory are urged two objections, which at first might seem to carry some weight, but which are easily set aside by a reference to the teachings of physiology.

Against the theory of a poison acting through the watery

portion of the blood it is objected that, if the vitiation of this fluid is the cause of the disease, and if the poison is really eliminated by the evacuations which occur, the severity of the symptoms of the disease should steadily decline from the commencement of the evacuations. Now we have through the whole argument assumed that the manifestations of the disease are produced through the immediate effect of the poison upon the ganglionic nerves; and as it is an established fact that "the effects of stimulation or irritation of this system are not instantaneously manifested, as is the case in the cerebro-spinal system, but are developed slowly and gradually," a little reflection will obviate the difficulties which at first sight are presented by the spectacle of a proximate cause acting with increasing energy, while the remote cause is becoming continually more inert.

The second objection is still more weighty, though far from conclusive. It is urged that the phenomena of collapse are due to an arrest of the circulation in consequence of the viscidity of the blood, which has been drained of its watery portion, and that these phenomena cannot be attributed to spasm of the pulmonary arterioles, because there is not a degree of dyspnœa sufficient to warrant a belief in the existence of any pulmonary obstruction. Now collapse is not simply the result of impeded circulation, else it would not differ from syncope. It results from a depression of the vitality of the system, combined with an arrest of the circulation. The specific consequences of such an arrest would be the same, whatever its cause; and were it not for its relation to the plan of treatment, the exact nature of the impediment which undoubtedly exists would be a matter of no importance. That simple viscidity is not the cause of the impeded circulation, is rendered clear by the fact that after reaction has taken place, the blood moves without difficulty, even before its volume has been restored; nor can the sudden occurrence of the collapse which occasionally supervenes before the manifestation of other grave symptoms be explained by the supposition of a morbid viscidity of the blood. In cases of this class there is little evacuation; collapse is suddenly declared; the patient experiences a want of

air, and suffers indescribable agony; death speedily closes the scene, while the blood is still fluid, before the strength has been exhausted by suffering and evacuation. These phenomena bear a striking resemblance to the phenomena which follow the admisssion of air into the right side of the heart,—an accident which produces distress and speedy death by a mechanical impediment to the passage of blood from the right ventricle to the pulmonary capillaries.

As for the dyspnœa which some think should result from such an obstruction to the current of the blood, it is sufficient to remember that the phenomena of asphyxia are due to a cessation of the supply of oxygen to organized tissues in which the processes of nutrition are still active. Whenever the processes of nutrition are partially suspended, the supply of oxygen may be almost entirely cut off, without exciting that distress which would be felt as a consequence of such an arrest during a state of health. The following experiment performed by Bernard, illustrates this proposition: "A sparrow was confined under a bell-glass for one hour and a half, at the end of which time another was introduced; the first being still comparatively vigorous. The second became instantly much distressed, and died in five minutes; but ten minutes after, the sparrow which had been confined for more than an hour and a half, was released, and flew away." The bird which was first imprisoned, gradually poisoned the air of the receiver, by absorbing oxygen and exhaling carbonic acid gas. By this process the oxygenation of the blood was progressively hindered, yet no symptoms of distress were manifested, because the processes of nutrition were by inhalation of a poisonous atmosphere, correspondingly depressed to such a degree, that the demand for oxygen in the system was insufficient to excite that *besoin de respirer* which was immediately manifested by the second bird, in whose tissues, integral vitality being unimpaired, the processes of nutrition were so slightly depresssed, that the demand for oxygen was greater than could be supplied from the vitiated atmosphere of the receiver. Hence, the symptoms of distress and the speedy dissolution of the stronger and healthier bird—actually de-

stroyed by its own superior vitality.* Now the condition of a cholera patient is very similar to the condition of the bird under a receiver. Gradually deprived of blood through the diminution of the arterial current, and depressed by the overwhelming influence of the cause of the disease, the processes of nutrition are impeded, and the demand for oxygen in the tissues is so slight, that when collapse finally occurs, the only symptoms of asphyxia are sighing, yawning, or a trifling degree of dyspnœa, instead of those symptoms of acute distress, faintness and want of air which attend collapse when it ushers in the disease. The same facts were presented in the case of a patient who recently died of pyæmia, at the County Hospital. In that case the liver exhibited a marked degree of superficial paleness, but, on section, black blood poured from its cavities as freely as if the incision had been carried through living flesh. On opening the thorax, the anæmic condition of the lungs was so remarkable that I expected to find some obstruction to the passage of blood between the liver and the lungs. Section of the heart revealed a sufficient obstruction in the shape of a firm straw-colored clot which filled the right side of the organ, and extended to the ultimate ramifications of the pulmonary artery.† Here was a condition producing appearances analogous to those which characterize the morbid anatomy of cholera during the stages previous to reaction: there was impeded circulation of the vitiated blood, leading to its confinement in the venous cavities, and producing the diarrhœa and sweating which serve to eliminate the *materies morbi*, yet none of the acute distress which would have been inevitable had the processes of nutrition been creating in the tissues a constant demand for oxygenated blood.

It has then been shown that the symptoms of cholera indicate a condition in which the system labors under the effects of a poison which is contained in the watery portion of the blood; that the efforts of nature are directed to the exclusion of this

* Does not this explanation hint at one of the causes of the greater mortality which attends the outbreak of all epidemics of dangerous disease?

† In this case the bloodless appearance of the lungs as they were exposed *in situ* was very remarkable, yet the obstruction was not sufficient to prevent the occurrence of considerable hypostatic congestion. May we not in this way reconcile some of the conflicting statements respecting the condition of the lungs after death in collapse?

vitiated fluid from the tissues, and to the ejection of its poisonous constituents from the body; that the arrest of secretion and the retention of excrementitious matters, are the inevitable result of that derangement of the circulation which is most favorable to the forcible and speedy purification of the blood; and also, that the absence of certain phenomena does not contradict this view, but is really owing to that serious depression of the integral vitality of the tissues which is the true source of danger in the disease. In accordance with this theory, the indications for treatment are: 1st, to administer an antidote to the poison that causes the disease; 2d, to sustain the integral vitality of the system; 3rd, to favor the evacuation of the poisonous constituents of the blood; and 4th, to supply the means for a restoration of a healthy circulation. The antidote to the poison of cholera remains for future discovery, so we must reluctantly forego this branch of the treatment. The attempt to sustain the vital energies of the patient next engages our attention. You are all sufficiently familiar with the methods which are commonly employed for this purpose. I shall in this connection only advert to the use of stimulants, which usually constitutes the chief reliance in efforts to sustain vitality. Since the prostration of cholera consists in the depression of vitality which results from the circulation of poisoned blood, and since the collapse of the disease consists in this depression, with the added effects of an impeded circulation, the condition of the patient is widely removed from that state of syncope which is the result of a temporary debility of the heart. In syncope the blood and the tissues are healthy,—all that is needed is the power of propulsion from the heart. This is furnished by stimulants, and may be sustained by them until the full measure of cardiac vigor is restored. But when the vitality of the tissues is overwhelmed by contact with poisonous blood, an agent which serves not to purify that blood, but only to increase the freedom of its supply by spurring the circulation, cannot fail to be injurious. Alcoholic stimulants, moreover, have the fatal property of diminishing the activity of the processes of disintegration and nutrition, processes which in cholera are already at their lowest ebb. Hence, we should anticipate that the use of diffusable

stimulants must be injurious in this disease, and experience fully justifies the anticipation. But, if we possess any agents which can support the vitality of the tissues without too much acceleration of the circulation, their use will be found beneficial.*

The next indication is to favor the evacuation of the poisonous constituents of the blood. This does not at all imply the acceptance of the doctrine, that like cures like, requiring the use of purgatives and emetics. The duty of the physician consists in rightly interpreting the efforts of nature, and in placing the patient under those conditions most favorable to the unimpeded activity of his own natural powers. Hence, it is as important to know what to avoid as to know what to do. It is in the preliminary stages of the disease as important to keep in view the elimination of the poison, as it ever can be in the later stages. While restraining the diarrhœa, which is only dangerous because of its tendencies, we shall not contribute to the safety of the patient if we neglect to promote the activity of the skin, the kidneys and the liver. Hence, the advantage gained by the use of an intestinal astringent like sulphuric acid, which increases the activity of the kidneys, especially when combined with diuretics and with diaphoretics. In the successive stages of the disease this consideration should deter us from the use of those astringents which simply prevent the escape of the fluids of the blood. The worst cases are by no means those which are characterized by the most copious evacuations. It will not often be necessary to use evacuant remedies, but when collapse occurs suddenly without any antecedent discharge, diaphoretics, emetics and even purgatives are required. So long as we have no antidote to the poison, nothing can be more calculated to endanger the safety of the patient than an attempt to oppose its elimination from the system; consequently, when the processes by which the blood is ordinarily purified are necessarily suspended, the attempt to arrest purging by the use of opium and astringent remedies can, if

* The good effects of *small* doses of laudanum in collapse are well known, and explain the success which has attended the use of the celebrated cholera mixture employed in Constantinople.

successful, only add to the dangers which surround the sufferer.* The use of calomel is defended on the ground that it is the most powerful agent which can be employed to increase the discharge of bile. True enough, and its use is indicated in the earlier stages of the disease before the appearance of alarming symptoms, while there is only inactivity of the hepatic function. But when the liver has become so deeply engorged with blood that secretion is difficult if not impossible, what benefit can accrue from the use of such an agent? Depletion is needed to restore secretion in this stage. Good results have without doubt sometimes followed the administration of calomel during the stage of prostration, but they seem to have been confined to that diminution of gastric irritability which results from the local effects of the drug upon the mucous surface of the stomach. Moreover, when the chief reliance has been placed upon this remedy, its use has often prevented that resort to astringents and stimulants which would have so greatly increased the chances against the patient.

What then shall be done by the physician?

In the first place the patient should be placed in bed, to procure that equalization of the circulation which is favored by the warmth of the couch, and is most favorable to the action of the secernent glands. As remedial agents, there can be nothing better in the stage of cholerine than the mildest of mercurials, alternated with the sulphuric acid lemonade. But if the disease advance to the stage of prostration which threatens collapse, mercurials, astringents and opiates should be abandoned. We must now favor evacuation, relieve pain, and control the circulation. Give one large dose of castor oil, to remove all offensive matter from the bowels, and if there is great distress and prostration without evacuation, give soda powders, largely diluted, to prevent irritation, which, by the action of their saline ingredients, will serve to provoke the discharge of water from

* This is disputed by some who assert that the more active the vomiting and purging in a case of cholera, the more certainly fatal will be the result. Yes, if the ordinary treatment is conducted with an activity proportioned to the urgency of these symptoms; for, as I have shown, the danger of the patient is proportioned to the degree of success which attends the hindrance of these vicarious processes of elimination, and it is in precisely this class of cases that the largest doses of opium, acetate of lead, etc., followed by the most copious libations of brandy, are usually employed.

the blood, and by their effervescence will tend to allay the irritability of the gastric surfaces. If perspiration is deficient, give warm mint-tea containing a drachm or two of sulphuric ether. To relieve dyspnœa, to allay the pain occasioned by muscular cramp, and to overcome that irritability for which opium is usually administered, give chloroform by inhalation and by the mouth. The effect of chloroform must be very carefully watched, because, if carried too far, the brain will become congested, the blood will become still more deprived of oxygen, and by excessive relaxation of the pulmonary arterioles, combined with the stimulation of the heart, which is one of the primary effects of chloroform, too great a supply of vitiated blood may be discharged upon the tissues, which are already in peril from contact with the poisonous fluid. Chloroform will be most serviceable when collapse comes on early, (as the result in great measure of mechanical impediment to the pulmonary circulation,) before the vitality of the tissues has been so far depressed that they feel but slightly the need of oxygen to sustain the processes of nutrition. In this stage the patient will be relieved by chloroform, very much as a criminal, half-strangled by a hangman's cord, is relieved by the knife which severs the noose around his neck. Chloroform may relieve, but unfortunately, it cannot cure, for the blood of the cholera patient contains a poison which will destroy the life of the tissues, and which can neither be neutralized nor eliminated by agents like chloroform, bleeding, tartar emetic, etc., which simply relax spasm or allay irritation. All these agents have been found useful, but, except so far as they favor evacuation, their good effects are restricted to the single property of controlling spasm and irritability. Their secondary effects are useless if not positively injurious, and their employment should be restricted to those cases where the phenomena which result from impeded circulation, have with them associated a degree of dyspnœa and distress which indicates that the vitality of the tissues is not yet so far overpowered that the want of oxygen is no longer experienced by the system. When vitality has ebbed so low that the cessation of the pulse awakens no responsive respiratory effort, the use of chloroform will be at-

tended with more danger than accrues from bleeding and tartar emetic.

But in this stage, when collapse follows the season of prostration in the ordinary course of the disease, these active agents should seldom be employed. The stage of collapse is a recuperative stage. It is not syncope, but, like the syncope which saves the wounded man by arresting hemorrhage, its design is to save by relieving as far as possible the enfeebled system from contact with the poison which still remains. It is not so much the result of diminished fluidity of the blood, as it is the result of an intolerance of that blood by the system. Hence, our treatment in this stage must tend as little as possible to perturb the operations of nature. Stimulants and astringents are contra-indicated, for the reasons which have been already detailed; opiates, for the same reason, as well as for their tendency to promote cerebral congestion and the retention of excrementitious substances in the blood. Chloroform and tartar emetic are too dangerous. Bleeding may prove beneficial by still farther evacuation of the poisonous agent, and by adding vigor to the heart through depletion of its cavities, but it is liable to the risk of adding syncope to collapse. There remains then little to do but to persist in carrying out the fourth indication for treatment, viz: to supply the materials for the restoration of a healthy circulation. Considering again the nature of the evacuations in cholera, we find that they consist chiefly of the water of the blood. This is discharged from the capillaries, and is recruited from the fluids of the body, occasioning that frightful emaciation so characteristic of the disease, and producing the fearful thirst which consumes the patient. Here is the plainest indication for treatment: Give water freely. The greater portion will be vomited, but some will be retained, and by the process of endosmosis will enter the veins to replace the ejected serum.* During the earlier stages of the process of evacuation, the exosmosis of the serous portion of the blood will be favored by the administration of water, in which is dissolved a quantity of salt somewhat exceed-

* Water should be imbibed slowly, to avoid the tumultuous discharges which may result from suddenly overloading the stomach with large draughts of fluid. Hence the advantage of sucking ice.

ing the proportion of the saline constituents of the blood. During the later stages of the disease, when the blood has been largely drained of its water, and when, consequently, its replenishment is desirable, endosmosis should be favored by the administration of water containing a smaller proportion of saline ingredients than exist in the blood. In this way the renewal of the blood will be promoted in a manner far less dangerous than by the method of injecting saline solutions into the veins. As soon as reaction commences, cups should be applied to assist in relieving the engorgement of the kidneys and the liver, and as soon as urine begins to flow, the elimination of urea from the blood must be encouraged. The hepatic secretion will soon be re-established, and the patient may be cared for in accordance with the general principles which govern the treatment of the various conditions which grow out of the different forms of reaction.

Such, then, is the theory of the pathology and treatment of cholera, derived from a consideration of its symptoms and its morbid appearances. I have said little about the accessories of treatment, such as sinapisms, foot baths, friction, ice, vapor baths, warm baths, etc., because the limits of this paper restrict one to the leading features of the disease and of its treatment, and for the same reason I have not touched upon the pregnant subject of prophylaxis. If we entertain a clear view of the pathology of the disease, we shall at least know how to avoid whatever tends to harm the patient; and while we remain destitute of remedies antidotal to the cause of the disease, the best we can do in our treatment will be, to remove as many as possible of the impediments which hinder the recuperative efforts of nature, while we endeavor to sustain the powers of the sufferer. The mortality of cholera will always be large, and the percentage of deaths will always be greater at the commencement of an epidemic than towards its close, from the fact that those persons whose livers and kidneys have been damaged by previous disease, are, by consequence, pre-eminently susceptible to the invasion of cholera, and are especially liable to fatal complications during its course. If, recognizing these facts, we shall, without wavering or discouragement, continue to apply

that treatment which is founded upon the established principles of physiology and pathology, we may confidently expect to see a great reduction in the general average mortality resulting from this terrible pestilence.

Since the completion of the *a priori* argument contained in the preceding pages, my friend, Dr. Marguerat, has placed in my hands the following statistics, from the hospitals of London, Paris and Vienna, which serve to illustrate the practical working of the different theories which have been formed for the guidance of the physician in cholera:

TREATMENT AND MORTALITY OF CHOLERA.

TREATMENT.	Cases.	Deaths.	Per ct.
Venous injection,.	90	78	85.7
STIMULANTS.			
Brandy, ammonia, turpentine, cajeput oil, etc.,	3055	1792	58.8
Ditto with ipecac emetics,	37	25	67.
Ditto with calomel and opium,	356	214	60.
Ditto with ice,	58	29	50.
Opium,	81	47	58.
Calomel and opium,	196	112	57.14
Calomel,	376	147	36.59
Bleeding, with calomel, opium and antiphlogistics,	285	168	59.
EMETICS.			
Ipecac,	21	12	57.
Ditto with stimulants,	37	25	67.
Ditto with bleeding and quinine,	161	81	50.
Ditto with bleeding alone,	222	104	47.
Ditto with moderate warmth,	281	98	34.9
Salt with cold water,*	607	112	20.
Tartar emetic,	21	4	19.
Ice with stimulants,	58	29	50.
Ice alone,	142	43	30.
SALINES.			
Greville St. Hospital combination of salts,†	107	15	14.
Dr. Stevens' combination of salts,	88	67	76.8
MISCELLANEOUS,	17	8	47.6
Total,	6296	3210	51.

London Medical Times, vol. 19, p. 106.

* The salt emetic treatment consisted in the administration of about two tablespoonfuls of common salt in from four to eight ounces of cold water, every quarter of an hour, until vomiting is produced; then cold water in large draughts.

† The saline treatment consisted in the administration, every quarter of an hour, of sodæ carb. scr. ij, sodii chlorid. dr. ij, potass. chlorat. gr. viij, aquæ q. s. pro. haust. The patient was also placed in a hot saline bath, at 120 degrees, in which 14 lbs. of salt were dissolved. Cold water was drank *ad libitum*. See "The Medical Times," vol. 19, p. 89.

In reviewing these figures, it should not be forgotten that the mortality in private practice is much less than it is in public hospitals, to which are carried the worst cases from the dregs of the population. Keeping this fact in mind, one cannot fail to perceive that the tendencies of the disease are to recovery. The most unfavorable circumstances cannot prevent the convalescence of a large proportion of those who are attacked; and when the treatment is conducted in accordance with the settled principles that control the general therapeutics of all other diseases, the mortality is comparatively trifling.

Ligature of the Primitive Iliac Artery for Traumatic Aneurism. By RALPH N. ISHAM, M. D., Prof. of Operative Surgery in Chicago Medical College, etc.

CASE. August Tapka, Private, Co. K, 35th Wis. Vols., age 25, was admitted to the Military Department of the U. S. Marine Hospital, Sept. 30th, 1864.

He had received a bayonet wound of the right buttock through the ischiatic notch, while stationed at a camp near Milwaukee, March 18th, 1864. He bled to the extent of 16 or 20 ounces from the wound; the urine, which had to be drawn by the catheter for four days after the injury was received, contained much blood. There also occurred at once great swelling of the abdomen and right buttock. He was kept under treatment at Camp Washburn two months, when the swelling decreased and he began to walk. On the 12th of July he was reported fit for duty, and ordered to join his regiment at White River, Ark. He arrived there in a condition totally unfit for any service; the tumor rapidly returned, with much pain, in consequence of which he was hardly able to walk with the use of a cane. The swelling continuing to increase, after two days in the regimental hospital, he was sent to the general hospital at New Orleans. He states that he was then treated with applications to relieve his suffering, which he described as a "hammering pain" in the tumor with a corresponding movement in the part, which he had often observed himself. Not improving, he was fur-

loughed, placed upon a hospital boat and sent North. A surgeon on the boat opened the tumor with a bistoury, evidently mistaking its true character; blood escaping from the wound, it was immediately closed. Oozing continued to occur from this time; the patient arrived in Chicago in an exceedingly weakened condition, and was received into this Hospital.

On admission he was suffering great pain, referred to the tumor and right leg with constitutional irritation. He was anæmic with a quick and small pulse and anxious expression of countenance, presenting, in short, the appearance of one who had suffered from great loss of blood. On inspection there was a hard, tense, red and glistening tumor occupying the right nates, extending from the crest of the ilium to the natal fold, and from the right border of the os-sacrum to and over the anterior spinous process of the ilium. The cicatrix of the original wound was nearly in its center, and beside it was the recent wound made by the surgeon who opened the tumor, dilated to the size of a half-dollar and filled with clots of blood, through which (Oct. 2d) arterial blood escaped for the first time since admission. He complains of the throbbing pain and numbness of the limb, with difficulty of voiding urine.

A bruit is heard by applying the ear over the tumor, but no pulsation is audible. On the occurrence of the first hemorrhage in the Hospital, (Oct. 2d,) an injection into the sac of a solution of perchloride of iron was resorted to, with the effect of temporarily arresting the hemorrhage. On the 5th and 6th of October, patient improving. Meanwhile, the hemorrhage again occurred, notwithstanding the repetition of the injections. He had been seen by several medical gentlemen, who at first advised palliative measures. Upon further consultation, however, it was decided to wait no longer, but that *the operation of tying the common iliac artery* be performed for his relief. Accordingly, October 7th, 2 P. M., he was placed under the influence of chloroform by Sergeant Griffith, U. S. A., Hospital Steward, and assisted by Surgeon L. H. Holden, U. S. A., Medical Director, and Dr. Terry, A. A. Surgeon, U. S. A., and others, I proceeded to perform the operation. I made a curvilinear incision from in front of the extremity

of the last rib downwards and forwards to the crista ilii, then forwards above and along the crest, terminating at the anterior superior spine. The muscles were successively divided, with the fascia transversalis at the bottom of the incision, and the peritoneum being protected by two fingers introduced into the sub-peritoneal interval, the wound was enlarged to the extent of the original incision. The peritoneum was carefully lifted uninjured by the hand, together with the intestines, from the fascia iliaca, retained by an assistant, and the vessel exposed to view, not a drop of blood obscuring the parts. The ureter was lifted by the peritoneum. The vessel was ligated with a Mott's artery needle. The tightening of the ligature not only arrested the circulation in the limb, but diminished the size of the tumor so that its surface, which before was very tense, was now quite flaccid. The wound was properly closed, with the end of the ligature escaping from it, the patient placed in bed, limb in proper position, and enveloped in cotton.

Evening, 7 o'clock. Patient is resting comfortably, is free from pain, pulse 90. Bottles of warm water are kept near the limb which is enveloped in cotton, to maintain its warmth. Morphine, one-half grain. Oyster broth.

Saturday, Oct. 8th, 7 A. M. Patient slept well all night, limb warm, says he feels "very well," pulse 113. Ordered tr. verat. virid., 4 gtt. At 8 P. M., pulse 80, having passed a comfortable day. Color has returned to the limb with natural warmth. The wound is discharging pus and is in a healthy condition. Complains of some pain in stomach and bowels. Ordered a small dose of morphine, oyster broth and beef-tea.

Sunday, Oct. 9th. Is very comfortable, pulse 90, wound looking well, but an offensive discharge from sac appearing; *the clots were turned out*, and it was injected with a solution of permanganate of potassa.

Monday, Oct. 10th, 8 A. M. Pulse 80, patient feels well; all symptoms look favorable, but sanious and offensive discharges from the sac continue. Injections repeated to-day. 12. A. M. Pulse 90, limb natural, but patient is bathed in perspiration; the discharge from the sac is very offensive. 9

P. M. Is worse, pulse 115, wound of sac gangrenous, and, Tuesday, Oct. 11th, 10 A. M.,—dead.

Post-mortem examination showed a healthy condition of the artery, a well organized clot extending from ligature to aorta; no evidences of peritonitis. The wound of the artery proved to be in the anterior trunk of the internal iliac, within the sacro-ischiatic notch. The enormous sac was gangrenous. There were no appearances to account for the hæmaturia in the early history of the case. The difficulty of diagnosis in this case between gluteal aneurism and hemorrhage from within the pelvis, was only relieved by the previous history. The intelligent patient positively stated that the swelling first appeared within the crest of the ilium, where he had seen the pulsations; nor was there any additional evidence gained by a rectal examination. Whilst it was thus settled that the aneurism had its origin within the pelvis, the remaining uncertainty as to its true source decided that the operation should be on the common iliac. Had it been a gluteal aneurism, the operation to be resorted to would have been plainly that of turning out the clots and tying the artery through the sac, according to Astley Cooper's method, revived and practiced by Syme. An interesting feature in the case is, the disappearance of the tumor and its subsequent return, constituting that rare occurrence known as *secondary aneurism*, or perhaps, more strictly speaking, a recurring aneurism, for it would seem that the tumor did not occupy precisely the same position after its recurrence as before. A curious and interesting case of recurring aneurism is detailed by J. B. Cutter, M. D., of Newark, in the *American Jour. of Med. Sciences*, for Oct., 1865, after ligature of the external iliac artery, and for which the primitive was tied without success. The statistics of this operation when performed for arrest of hemorrhage or traumatic aneurism, are so very unfavorable as to cast a doubt over the mind of the judicious surgeon, as to whether it ever ought to be performed under these circumstances. In Prof. Stephen Smith's collection of cases, (*Am. Jour. of Med. Sciences*, for July, 1860,) thirty-two in number, seven recovered. Of these cases eleven were for the arrest of hemorrhage in wounds, or

in surgical operations, only one of which recovered. To these should be added Dr. Cutter's, Dr. Hammond's, of San Francisco, for gluteal aneurism, and my own, making fourteen cases with one recovery. And from the history of these cases, even when a prospect of recovery is promised by the temporary disappearance of the tumor, it is quite sure to return after the anastomotic circulation is established. Thus far the operation when performed for hemorrhage or traumatic aneurism, has not offered any prospect of success, and I believe that if the ligature is admissable it must be placed at the wound by the old operation, and that the application of the ligature by Hunter's method, in those cases where the wound of the artery cannot be reached, will rarely succeed. The gangrene may be accounted for in the enormous size which the tumor attained, owing to the laxity of the parts in which it was situated, and its being subjected to much pressure and irritation during his long journey from New Orleans, producing an inflammation of the sac, and breaking up with decomposition of the clots, instead of fibrinous consolidation.

PROCEEDINGS OF MEDICAL SOCIETIES.

CHICAGO MEDICAL SOCIETY—APRIL, 1866.

The fourteenth annual meeting of the Society was held on the evening of April 6th, 1866, at the residence of Dr. A. Groesbeck. The attendance was unusually large.

The following members were chosen officers for the ensuing year:

President—Dr. A. Groesbeck.
Vice-President—Dr. J. P. Ross.
Secretary and Treasurer—Dr. T. D. Fitch.

Delegates to the meeting of the American Medical Association, to be held at Baltimore, May 1, 1866, were chosen as follows: Drs. Chas. G. Smith, R. C. Hamill, T. D. Fitch, N. S. Davis, and W. D. Faxon.

The following were appointed delegates to the meeting of the

Illinois State Medical Society, to be held at Decatur, Tuesday, June 5th: Drs. E. L. Holmes, J. P. Ross, S. Wickersham, R. C. Hamill, S. C. Blake, G. C. Paoli, T. J. Bluthardt, S. J. Avery, D. B. Trimble, N. T. Quales, Ira Hatch, W. L. Faxon, and A. Fisher.

After the transaction of business, the members were invited by the host to partake of the bounties of the supper table, richly loaded with all the delicacies the heart (!) could wish.

During the past year the Society has enjoyed more than ordinary prosperity. The meetings have been generally well attended, and the discussions interesting and profitable. The papers which have been read from time to time, the reports of cases, and the pathological specimens exhibited by different members, would do credit to the medical society of any city.

Few physicians in Chicago can well afford to lose the benefit which directly and indirectly the attendance upon the meetings of this Society ensures.

We trust efforts will be made during the coming year to render the meetings of the Society even more instructive than they have been. This can be done if members will present the fruits of their experience, whether derived from private practice or from the different hospitals, infirmaries or dispensaries of the city.

At the meeting of April 13th, Drs. R. G. Bogue and B. Durham, Jr., were elected members of the Society.

Dr. Davis gave a verbal report, regarding the sanitary condition of the city during the past two months. There had been nothing peculiar in the weather to induce an unusual prevalence of disease, although catarrhal affections had been common. He had not observed any tendency to affections of the bowels, which could be considered as precursory to cholera. The city must be regarded as unusually healthy. The deaths during the past month were less in proportion to the population, than during the corresponding season for the past ten years; and yet the condition of our city was disgraceful in the extreme. Although there was an unpardonable neglect in removing the unusual amount of filth from the streets, alleys and yards, the temperature had been so low that these accumulations were now

comparatively harmless. Almost every vacant lot was covered with water, which is also found stagnant under nearly two-thirds of all the dwellings of the city. This, also, was comparatively innocuous during cold weather; but as the temperature becomes elevated and the ground partially dried, the emanations from the filth everywhere found in the city could not but prove prejudicial to the health of our populace. Attention was called to the importance of removing all vegetable and animal substances scattered so profusely around dwellings, as, also, of draining yards and vacant lots in such a way that the surface water may be rapidly conducted into the sewers.

Dr. J. Bartlett read an interesting report on cholera with statistics.

CHOROIDAL TUMOR.

Dr. Holmes exhibited a tumor of the choroid, with the following history: Two years ago a lady, about 50 years of age, consulted him about a pain in and near the right eye, which had already existed some weeks. Vision was totally destroyed; the pupil contracted and filled with exudation; the iris discolored and lying almost in contact with the cornea which was still transparent; the globe was abnormally hard. Extirpation of the eye was advised, to which, however, the patient was unwilling to submit. For two years, she was under the treatment of various practitioners, who endeavored in vain to relieve her suffering. Her health had become much impaired. On recently applying to Dr. H. again, she was willing to submit to the operation of extirpation. The globe divided through its centre, was found to be filled with solid material. The structure of the tumor was principally fibroid cells and exudation corpuscles, which could be seen in the specimen under the microscope kindly prepared by Dr. Lyman.

Such tumors are the products of hypoplastic choroiditis, and are non-malignant in character. After the removal of the eye, the patient at once recovered her health.

ELEPHANTIASIS OF THE CLITORIS.

Dr. Lyman exhibited a specimen of this rare disease, which was removed by Dr. McClure, from a patient at the Alms

House. She was a woman about twenty-five years of age, the mother of several children, and had suffered with constitutional syphilis. The clitoris commenced to enlarge about three years previous to the time of its removal. It formed a pendulous bifid tumor, dangling between the thighs, and reaching half way to the knees. Its surface was nodulated, and was ulcerated at several points, exuding a most offensive discharge. The tumor was easily removed by amputation after the application of a whip-cord ligature around its pedicle. The stump cicatrized in eight days after the operation. Microscopical examination showed fibrous and connective tissue as the principal elements of the mass.

Dr. Hildreth described the peculiar effects of ℥vi. of chemically pure sulphuric ether administered to a patient at the Cook County Hospital. Perfect anæsthesia was produced in ten minutes. The patient appeared as if under the influence of a poisonous dose of opium, the muscles being perfectly relaxed, pulse 80. He was unconscious, and unable to swallow fluids placed in the mouth. Coffee and brandy introduced into the rectum, and flagellation, with strong aqua ammonia held to the nostrils, aroused him. In three and a half hours the patient had fully recovered.

FRACTURE OF THE BASE OF THE SKULL.

Dr. McAllister related the history of a case in which a gentleman had been thrown from a carriage, striking his head against a railroad tie. On visiting him a few hours after the accident, he found him insensible, with blood flowing from the right ear. The discharge soon became serous in character. In sixty hours, consciousness returned; in seven days the patient was apparently in perfect health, and able to attend to his ordinary business.

Several members in reference to this case, expressed an opinion that there was undoubtedly a fracture of the base of the skull, and that the patient was not yet out of danger.

Dr. J. W. Brooks stated that one of his own children speedily recovered from a severe injury of the head, accompanied by bleeding from the ears and nose. The child appeared perfectly

well, and was able to attend school. Death occurred, however, five months after the accident. An examination revealed an abscess of the brain, with fracture of the base of the skull.

Dr. Tucker stated that he had sometime since treated a child, who had fallen into the hold of a vessel, producing a discharge of blood from the nose and ears. The recovery was speedy, and the health was good years after the injury.

Allusion was made to the fallacy in diagnosis in these cases, if the blood from the nose should flow into the ears, as could readily happen in certain positions of the head.

TRICHINA SPIRALIS.

Dr. Lyman exhibited under the microscope, specimens of trichina spiralis, taken from pork cured at the packing houses of Chicago. Of 1394 swine examined, trichinæ were found in twenty-eight.

SYPHILIS.

Dr. C. G. Smith related the particulars of a case of syphilis communicated by an infant to its wet nurse. When the nurse took charge of the child, it had eruptions on the surface, and a sore mouth, of the character of which, however, she was ignorant. In three weeks she discovered indurated ulcers around the nipples. In two months there appeared a syphilitic roseola on the neck and arms. Mercurial inunctions for ten days, caused the eruptions to disappear, and the ulcers to heal, although the indurations remained.

A member related the history of a young woman, whose irreproachable character left no doubt of the truth of her narrative, who experienced the horrors of syphilitic innoculation, through a kiss from the gentleman to whom she was engaged. A chancre upon the lip was the result of this caress, and subsequent medical investigation revealed the fact that the young man was at the time under treatment for syphilitic ulceration of the throat.

At the meeting of April 27th, Drs. D. T. Nelson, Wm. Knox, Geo. K. Amerman and E. Ingals, were elected members of the society.

DE WITT COUNTY MEDICAL SOCIETY.

The Society met in annual session, in Clinton, at the office of Dr. Shurtleff, on Monday the 2d day of April, 1866, Dr. Tyler in the Chair.

The minutes of the previous meeting were read and approved.

On motion of Dr. Madden, Dr. Drombolone and Dr. Jno. A. Edmiston were invited to participate in the proceedings of the meeting.

The election of officers being in order, the following gentlemen were elected for the ensuing year: President, Dr. John Wright; Vice-President, Dr. B. K. Shurtleff; Secretary, Dr. C. Goodbrake; Censors, Dr. J. H. Tyler, Dr. R. T. Richards and Dr. T. W. Davis.

Delegates to the Ill. State Medical Society, Dr. R. T. Richards, Dr. B. K. Shurtleff and Dr. T. W. Davis.

Delegates to the American Medical Association, Dr. B. S. Lewis and Dr. T. K. Edmiston.

Dr. Tyler, the retiring President, then delivered an address on the diseases most prevalent in DeWitt county during the past year, for which he received the thanks of the Society.

Dr. John A. Edmiston, of Clinton, and Dr. Charles W. Drombolone, of Marion, having applied for membership, and the Censors having reported favorably, they were unanimously elected members of the Society.

Dr. Z. H. Madden reported a case of intermittent fever, followed by partial paralysis, which called up a discussion, in which most of the members present participated.

The essayists appointed at the last meeting, having failed to fulfill their duty, were continued, and the President also appointed Drs. J. A. Edmiston and C. W. Drombolone to read each an essay at the next meeting.

Cholera was chosen as the subject for discussion at the next meeting, and after the passage of a series of sanitary resolutions, referring to the impending epidemic, the Society adjourned to meet in quarterly session at Clinton, on the 1st Monday of July next, at 10 o'clock A. M., at Dr. Shurtleff's office.

C. GOODBRAKE, *Sec'y.*

SELECTED ARTICLES.

SURGERY.

On Chronic Ulcers. By FREDERICK C. SKEY, F. R. S., etc. —The more chronic the ulcer, the larger its size, the more aged the subject, the more remarkable is the influence of opium in effecting its cure. Treat such a case of chronic ulcer of the largest size, having a pale, flat, bloodless base, a high mound of lymph around it, covered by unhealthy integument, the sore pouring out a large quantity of watery ichor, saturating the linen, stockings, and other appliances—I say, select such a case, occurring in old age; give such a man ten or fifteen drops of tincture of opium night and morning, leave his bowels alone, and observe the base of the sore in five or six days; it will exhibit a number of minute red points, which, daily increasing in number, will rise up in the form and identity of healthy granulations, and cover the entire surface of the ulcer. Contemporaneously with the gradual elevation of the base of the ulcer is the descent of the surrounding eminence, and the commencement of the process of cicatrization. If I desired to select an ulcer on behalf of a student, with a view to illustrate the character of perfect granulations as they appear in a thoroughly healthy example, I would select an ulcer which had been treated by opium in preference to any other. If it be supposed by any man having limited experience in the employment of opium, that any evil to the constitution attaches to the use of that valuable agent, I can only reply that its salutary action on the ulcer is obtained solely through the healthy influence it exercises on the constitution. Judiciously employed, no drug in our pharmacopœia is more innocuous.

MISCELLANEOUS.

On a New and Ready Method of Producing Local Anæsthesia. By BENJ. W. RICHARDSON, M. A., M. D., F. R. C. P., Senior Physician to the Royal Infirmary for Diseases of the Chest.

When the toy for diffusing eau de cologne in fine vapor over the skin, in the form of spray—which some time ago found its way into our drawing-rooms—first came before me, it struck me at once that it might possibly be applied to the production of local anæsthesia; and I set to work to try its applicability in this respect. I was soon afterwards assisted largely in my labors by taking advantage of Siegle's apparatus, with the hand-bull spray-producer invented by my valued friend, Dr. Andrew Clarke, and supplied by the manufacturers, Messrs. Krohne & Sesemann, of Whitechapel road.

With this apparatus I set myself to determine the degree of cold that could be produced by the vaporization of all the known volatile liquids, and I determined the fact that the intensity of the cold produced, held a definite relationship to the boiling-point of the fluid used; the rule being that the lower the boiling-point, the greater was the amount of cold exhibited. In these inquiries I employed a very delicate thermometer, directing the spray upon the bulb from half an inch to an inch and a-half from the point of the jet. By these means I learnt that with rectified sulphuric ether, I could bring down the thermometer within 10 degrees Fahr. of zero, and that by directing the jet on the skin, I could produce a certain definite and marked degree of local insensibility, but not sufficient for surgical purposes.

I next got Mr. Krohne to construct for me a hollow cylinder of thin metal, six inches long and three inches in diameter. In the circumference of this cylinder was a chamber one-eighth of an inch in diameter for containing ether. The ether communicated with a tube which was joined to an air-tube, as in Siegle's apparatus, and the centre of the cylinder was filled with ice and salt mixture. In this way the ether was reduced to zero, and when vaporized gave spray which brought down the thermometer six degrees below zero, and produced on the skin such entire insensibility that I could pass a needle through the part without sensation. On the 11th of December, 1865, I applied this process for the first time on the human subject for an operation. The patient was a lady, who required to have five front teeth extracted. I had previously administered chloroform to this lady for a tooth extraction, but the inhalation had produced so much irregularity in the action of the heart and other disagreeable symptoms, that I considered it inadvisable to repeat chloroform, and she herself was only too ready to give the local measure a trial. The extraction was performed by my friend, Mr. Peter Matthews. On directing the ether spray first at a distance and then closely upon the gum, over the first central incisior on the left side, we observed, at the end of fifty seconds, that the gum had become as white as the tooth itself, and quite insensible. I then directed the vapor upon the tooth for twenty or thirty seconds more, and on the patient intimating that she did not feel, I suggested to Mr. Matthews to proceed. He extracted a very firm tooth without the slightest expression of pain. The process being continued in the same manner, he extracted three other teeth with the forceps. The other gave way, and had to be removed by the lever; but in all cases the result was equally good. Not a drop of blood was

lost; there was no painful reaction; and the healing process proceeded perfectly. Our patient, who was exceedingly intelligent, was specially requested to note every step of the operation, such as the applying of the forceps, the insertion of the blades beneath the gum, the loosening process, and the removal. She told us that in two of the extractions she felt nothing; that in one it seemed as though the jaw altogether were being pulled downwards, but without pain; that in another she was conscious of a kind of wrench or loosening but without pain, and that the introduction of the lever was attended with a momentary dull ache, just perceptible. On the whole, the process was quite as painless as when she took chloroform.

On December 13th I applied the local anæsthetic to the same lady for the further extraction of nine teeth, Mr. Peter Matthews again operating. The results were equally good with the first seven, at which point, unfortunately, the apparatus partly ceased play. At the eighth tooth pain was felt, and at the ninth, the apparatus being out of play, the operation caused great pain. We regretted this much, although it gave us the information of the perfect action of the process when no mechanical obstacle interfered with it. The reason why the apparatus stopped play was very singular, and could hardly have been foreseen. It arose from the condensation of water derived from the air in the air-tube, and from the blocking up of the fine jet with a little portion of ice.

In the next step of research I got Mr. Krohne to make for me an apparatus with two spiral tubes, one the air-tube, the other a tube for ether; and I immersed these spirals in a closed chamber filled with ice and salt. The degree of anæsthesia at first produced was most intense, and Mr. Spencer Wells was good enough to allow me the opportunity of applying the process in a case where an operation was required for closing a perineal rupture. Unhappily the apparatus, from the very same cause as before, ceased to yield a current; water condensed and became frozen in the air-tube. The apparatus itself was also found to be too cumbersome for practical purposes; I therefore, in this trial, failed to obtain any result.

By this time I had been led, very reluctantly, to the fact that the use of ice and salt for reducing the ether was a failure when the plan came to be tried in practice, nor could I see any ready way of preventing the difficulties that were brought before me. Added to these difficulties there was another, which has always attended my friend, Dr. Arnott's plan, viz., that of getting the ice and salt readily for operation. To succeed, therefore, it was quite requisite to dispense with ice and salt altogether.

In considering how this object could be achieved, it occurred to me that if a larger body of ether than is supplied by Siegle's apparatus, could be brought through the same jet, by mechanical force, in the same interval of time, and with the same volume of air, a proportionate increase of cold must necessarily be produced. The theory was one of pure physics, admitting even of arithmetical demonstration, and running parallel with the lessons which had been taught me with respect to the cold produced by liquids having different degrees of boiling point. The theory was put to the test at once, and proved correct to the letter. By driving over the ether under atmospheric pressure, instead of trusting simply to capillary action—or to suction, as in Siegle's apparatus—the spray evolved brought the thermometer within thirty seconds to four degrees below zero—the result that was desired.

Ascertaining this truth, I instructed Messrs. Krohne and Sesemann to construct a proper apparatus. It consists simply of a graduated bottle for holding ether; through a perforated cork a double tube is inserted, one extremity of the inner part of which goes to the bottom of the bottle. Above the cork a little tube, connected with a hand bellows, pierces the outer part of the double tube, and communicates by means of the outer part, by a small aperture, with the interior of the bottle. The inner tube for delivering the ether runs upward nearly to the extremity of the outer tube. Now, when the bellows are worked, a double current of air is produced, one current descending and pressing upon the ether forcing it along the inner tube, and the other ascending through the outer tube and playing upon the column of ether as it escapes through the fine jet. By having a series of jets to fit on the lower part of the inner tube, the volume of ether can be moderated at pleasure; and by having a double tube for the admission of air, and two pairs of hand bellows, the volume of ether and of air can be equally increased with pleasure, and with the production of a degree of cold six below zero.

By this simple apparatus, at any temperature of the day and at any season, the surgeon has thus in his hand a means for producing cold even six degrees below zero; and by directing the spray upon a half-inch test tube containing water, he can produce a column of ice in two minutes at most. Further, by this modification of Siegle's apparatus, he can distribute fluids in the form of spray into any of the cavities of the body—into the bladder, for instance, by means of a spray catheter, or into the uterus by an uterine spray catheter.

When the ether spray thus produced is directed upon the

outer skin, the skin is rendered insensible within a minute; but the effects do not end here. So soon as the skin is divided, the ether begins to exert on the nervous filaments the double action of cold and of etherization; so that the narcotism can be extended deeply to any desired extent. Pure rectified ether used in this manner is entirely negative; it causes no irritation, and may be applied to a deep wound, as I shall show, without any danger. I have applied it direct to the mucous membrane of my own eye, after first chilling the ball with the lid closed.

I have now employed this mode of producing local anæsthesia in four cases on the human subject. The first case was the extraction of a tooth from a lady, the operation being performed by my friend and neighbor, Dr. Sedgwick, on January 24th of this year. On the 29th of the same month I used it again on the same lady for the extraction of three very difficult teeth, Dr. Sedgwick again operating. The results were as satisfactory as in the previous case, where the ice and salt ether apparatus was used.

I have used the apparatus also in connection with my friend, Mr. Adams, who had a case at the Great Northern Hospital of deep dissecting abscess, in the thigh of a young woman. In the abscess there was a small opening, which just admitted the director. I first narcotized around this opening, and the director being introduced, Mr. Adams carried his bistoury nearly an inch deep, and one inch in the line of the director. I then narcotized the deep-seated parts, and enabled him to cut for another inch and a half in the same direction. The director was then placed in the upper line of the abscess, the process was repeated, and the incision was carried two and a half inches in that direction. The patient was entirely unconscious of pain, and after narcotizing the whole of the deep surface, Mr. Adams inserted his fingers, and cleared out the wound without creating the slightest evidence of pain.

Afterwards, in the case of a lacerated wound, six inches long, in the arm of a boy, who had been injured with machinery, I narcotized while six sutures were introduced by Mr. Adams. The first needle was carried through without the anæsthetic, and caused expression of acute pain; the remaining eleven needles, after a few seconds' administration of the ether spray, were passed through painlessly. The twisting of the wire sutures gave no pain.

These results are so interesting, that I make no apology for bringing them at once before my medical brethren. I wish it to be distinctly understood, that at the present moment I only introduce the method here described for the production of

superficial local anæsthesia. It is, I believe, applicable to a large number of minor operations, for which the more dangerous agent chloroform is now commonly employed—I mean such operations as tooth extraction, tying nævus, tying piles, incising carbuncles, opening abscesses, putting in sutures, removing small tumors, removing the toe-nail, dividing tendons, operating for fistula, removing cancer of the lip, and other similar minor operations which I need not mention. The process may also be applied to reduce local inflammation.

In course of time, and guided by experience and the advancement of science, we may, however, expect more. If an anæsthetic fluid of negative qualities, as regards irritation of nerve, and which has a boiling point of 75° or 80°, can be obtained from the hydro-carbon series, the deepest anæsthesia may be produced, and even a limb may be amputated by this method. It may also turn out that certain anæsthetics may be added to the etherial solution with advantage, such as small quantities of chloroform, or some of the narcotic alkaloids, if they could be made soluble in ether. A solution of morphia and atropia combined, if they could be diffused through ether, which at present seems impossible, could thus be brought into action so as to cause deep insensibility. In operating on the extremities it would be good practice to stop the current of warm blood, by making pressure above on the main artery.

Reaction from the anæsthesia is in no degree painful, and hemorrhage is almost entirely controlled during the anæsthesia.

One or two precautions are necessary. It is essential, in the first place, to use pure rectified ether; methylated ether causes irritation, and chloroform, unless largely diluted with ether—say one part in eight—does the same.—*London Medical Times and Gazette.*

Antagonism of Morphia and Atropia.—The antagonistic action of morphia and atropia is a subject of the highest physiological interest. The inquiries of Drs. Keen, Moorhouse, and Mitchell have shown, (*a*) that these drugs do not counteract one another as regards their effects on the circulation; (*b*) that as regards the eye, they are mutually antagonistic, but the action of atropia is the more permanent; (*c*) that the cerebral symptoms, produced by either drug, are capable in a great measure of being overcome by the other, but there is some difficulty in establishing the proper balance; (*d*) that atropia does not diminish the nausea produced by morphia; (*e*) that the two medicines are antidotal, as regards their effects on the brain, but they have exactly the same effect on the bladder.—*Lancet.*

MEDICAL NEWS.

Prof. Hamilton is preparing a new edition of his work on Fractures and Dislocations.

Homœpathy has signally failed in the treatment of the rinderpest in England, where it was fairly tested.

Obituary.—Died, recently, in Edinburgh, Scotland, Dr. James Simpson, son of Prof. James Y. Simpson, a young physician of great promise.

Horse-Flesh as Food.—Markets for the sale of horse-flesh have been officially established at Paris, Vienna, Stockholm, and Copenhagen.—*N. Y. Med. Record.*

The Cholera has broken out with great virulence on the Rhine, and may be expected to spread over Germany, Holland, Belgium and England, during the approaching summer.

A wealthy gentleman of Boston has placed a sum of money in the hands of an architect, for erecting a monument in that city to commemorate the discovery of the anæsthetic properties of Ether.

Prof. Brainard was in Rome, with his family, on March 14, the date of his last letter to friends in Chicago. His health has improved, and he was expected to make a tour through Italy, then go to Paris.

Dr. Mott's Will.—The entire value of the estate of Dr. Valentine Mott is stated to be about $400,000. His anatomical museum goes by his will to the New York Medical College. —*Pacific Med. and Surg. Journal.*

The Surgeon-General has had constructed a beautiful model of the Hicks United States Army General Hospital at Baltimore, Md., which he designs to send to France, to be exhibited at the Paris Exposition of 1867. The model is of wood, and is made on the scale of one inch to twenty feet.

Honors to Medical Men.—We have heretofore announced that Prof. James Y. Simpson, of Edinburgh, has been made a Baronet. The Queen of England has further seen fit to bestow the same distinction upon William Ferguson, the eminent Surgeon of London, and Dr. Dominick Corrigan, one of the first Physicians of Dublin.—*Cin. Lancet and Observer.*

Maximilian has founded a Medical School in Mexico, which requires seven years to complete the course of studies; about two hundred students have been in attendance, but unless the Imperial dynasty has better fortune than some of its preceding Governments, the founder of both Empire and School will scarcely have the honor of attending its first Commencement Exercises.

Dr. Wm. A. Hammond, Late Surgeon-General U. S. A.—It is stated in some of the daily papers, that Dr. Hammond "has gone to Europe, in charge of a grandson of the late John Jacob Astor; and a correspondent says that he receives for his services $10,000 in gold for six months, all travelling and subsistence expenses liberally paid, and $3,000 for each month beyond the six."—*Cin. Lancet and Observer.*

The Emperor of France has, recently, conferred upon Dr. J. Marion Sims the Cross of the Legion of Honour, in acknowledgment of the meritorious services rendered to the great cause of Obstetrical Surgery. Dr. Sims, as is well known, first attracted public attention during the period of his residence in Montgomery, Alabama, and had, in a subsequent practice of seven years in New York City, honestly earned the distinction which was there awarded to him. He moved to Europe during the late war, and now labors professionally, both in London and Paris.

Charivari has a picture of the cholera, as a horrible spectre, rousing the slumbering International Commission by a fierce attack; while, on this side of the water, *Harper's Weekly* has a similar figure, foreshadowing to avaricious landlords what they may expect both in New York and Chicago.

THE regular Annual Meeting of the Illinois State Medical Society will be held at Decatur, Tuesday, June 5.

VACCINE VIRUS.—Physicians in the country can obtain healthy and reliable virus by forwarding $1 to R. M. Lackey, M. D., P. O. Box 2175, Chicago.

NEW MEDICAL JOURNALS.—*The Medical and Surgical Monthly*, Memphis, Tenn. Edited by Drs. Ramsey, Saunders, Willett and White.

The Atlanta Medical and Surgical Journal. Edited by Dr. J. G. Westmoreland and Dr. W. F. Westmoreland.

Messrs. TICKNOR & FIELDS, of Boston, have placed upon our table their welcome serials for May. The established reputation of the *Atlantic Monthly* leaves no room for additional praise. *Our Young Folks* is the most readable of all the periodical issues designed for the rising generation; and *Every Saturday* is a weekly which contains, in the form of judicious selections, the cream of current literature.

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ORIGINAL CONTRIBUTIONS.

Spinal Meningitis, or Spotted Fever. By G. C. PAOLI, M. D.

(Read before the Chicago Medical Society, May 5, 1866.)

Mi. Kadish, a girl, seven years of age, was taken suddenly sick with a chill on the 1st of April. On the 3d of April, they requested my attendance. I found my little patient suffering with the following symptoms: The head was thrown back and so firmly fixed that she could not move it without at the same time moving the body. The smallest pressure applied to the neck and back was exceedingly painful. Her appearance was that of extreme anxiety and distress. The temperature of the skin was cold, and ecchymoses, or large blue spots, were visible on both arms and lower extremities. The pulse frequent, small and compressible. Her tongue dry and covered with a yellow fur. Bowels constipated and very tender to the touch, particularly over the transverse colon. She had not slept since the commencement of her illness. There was also intense headache and great difficulty in deglutition. Vomiting had occurred several times.

From those symptoms I have described, I saw that the disease was evidently a spinal meningitis, or spotted fever, in the worst form, and I nourished a very faint expectation that my

little patient would survive this formidable malady which is so much dreaded by our profession.

As I kept a journal in this case, I could have detailed for you to-night the daily changes; but to avoid tediousness, I shall permit myself only to notice the peculiarity of the symptoms and the treatment.

My first endeavor was to produce a reaction. For that purpose, I let the patient take a warm bath, which produced a gentle perspiration. After the bath I gave an injection, which produced an evacuation of hard, dark excrement. To the spine I applied flannel dipped in oil of turpentine, which produced considerable irritation of the skin.

Later in the evening, I gave her a calomel powder, which produced evacuation of the bowels of a very offensive or tarry-looking character.

It was with great difficulty that the patient could swallow anything, so that I had, for four successive days, to feed her with injections of beef-tea and milk. It was on the fifth day she commenced to drink milk, which constituted her food during her illness. The internal remedy, which I most relied on, was bromide of potassium, of which I gave 10 grs. every other hour. It seemed to have a sedative influence both as well to relieve the morbid sensitiveness as to procure sleep. Occasionally I gave fluid extract of cannabis indica, which, when the pain in the head was very intense, had a soothing effect. Besides the turpentine as an internal remedy, I used mercurial ointment and camphorated liniment.

During the progress of the disease the vital powers were very much depressed, so I prescribed musk. Although this powerful nervine is so scarce, I obtained an excellent article. The disease, which had a duration of five weeks, had its peculiar symptoms, which are worth mentioning, viz: every other day the temperature of the skin was more or less similar to what is often observed in a dull fever and ague; the tonic contraction of the muscles in the back were protracted; pains in the different articulations, like wandering rheumatic pains, which often prevented movement of her arms; and loss of hearing, from which she is now slowly recovering.

This case, as well as the previous cases that have come under my observation, convince me that an active poison is, for a long time, lingering in the system.

Incised Wound of Abdomen, with Wound and Protrusion of Intestine. By A. A. Surg. R. G. JENNINGS, U. S. A.

Private Harry Jacobs, Co. L, U. S. Cavalry, aged 24 years, a native of Pennsylvania, was stabbed in the abdomen at 11 o'clock A. M., February 20th, 1866, with a small blade of a pocket knife. He stated that he was standing at the time, and that he felt something like a kick with an unusual degree of warmth over the bowels, followed by faintness, causing him to seek his bunk, which he reached, though seven or eight feet in height. Upon opening his pants he found his bowels protruded. I was instantly sent for, but being about half a mile distant, did not reach him for some time. The man was stretched upon his bunk, his knees drawn up, pulse feeble, the surface bathed in a clammy perspiration. There were three coils of intestines upon the parietes of the abdomen, which were estimated to be not less than three feet in length. I had considerable difficulty in finding the opening into the cavity of the abdomen; and, after finding it, could not reduce the protrusion without assistance. After placing the man on a table, I discovered the wound to be about midway between the centre of the left Poupart's ligament and the umbilicus, extending upward and outward. I ordered cloths wet in warm water to be applied over the bowels, and sent for medical assistance and instruments. A. A. Surg. E. V. Deuell, U. S. A., in charge of St. John's Hospital, arrived soon after. The patient was brought under the influence of chloroform, when the wound was enlarged half an inch in its original direction by means of my finger, a grooved director, and a sharp-pointed curved bistoury. I retained my finger in the wound, elevating the walls of the abdomen while Dr. Deuell, by manipulation, returned the bowels to their place within the cavity. When this was nearly accomplished, we discovered a wound in the intestine fully three-quarters of an inch in length, which was serrated and bled

freely, although no fœcal matter escaped. In this wound two interrupted sutures were taken, the ends of the thread being clipped close to the knot. The edges of the wound in the abdomen were nicely adapted and retained with three deep interrupted sutures, not including the peritoneal membrane. A wet compress was now applied to the wound, and retained in its place by a broad bandage around the body. After recovery from the effects of chloroform, free emesis ensued, which would undoubtedly have broken the sutures in the abdomen had it not been firmly supported with both hands. I directed a nurse to be kept in readiness to render like assistance whenever necessary. A half grain of morphine was now given and the patient carefully conveyed to St. John's Hospital, where he came under the personal care of A. A. Surg. J. A. Dibrell. During the first twenty-four hours, and until after complete reaction was established, there was no medical interference. As symptoms of local peritonitis began to appear, cold water applications were kept constantly to the wounded part, and depressing doses of tr. aconite rad. and morphine were given him. This treatment was continued for several days, the doses being increased according to indications. On the fourth day an emollient enema was given with happy effects. From this time the wound rapidly improved; at the date of this report, it is entirely healed.

The soldier now expresses himself fully able for duty, and desires to go to his regiment. His bowels are regular and appetite good.

LITTLE ROCK, ARK., March 30th, 1866.

Upon Certain Coincidences in Cases of Retained Placenta. By H. WEBSTER JONES, A. M., M. D., one of the Physicians to Cook County Hospital.

Having noticed a singular agreement in the phenomena attending the last three cases of retained placenta, which have occurred under my own observation, I venture to place them upon record, with a view to determine from the results of com-

parative experience what relationship of cause to effect may have therein subsisted.

CASE I. Mrs. P., æt. 16, a primipara and healthy, was found upon her bed, having, a half an hour previously, while at the supper table, discharged the liquor amnii in great quantity. Her pains were slight and infrequent, and from the os uteri protruded a long loop of the funis. Early in the evening, the patient obstinately refused to assume the position recommended in such cases for the repositing of the cord, and other means proven unavailing, she was left to assume herself the responsibility of the infant's death. The labor was otherwise normal, though, throughout the whole, the uterine action was tardy and inefficient. Birth took place at 8 A. M., the lifeless infant exhibiting every indication of a vigorous intra-uterine growth.

The contraction of the womb was now cylindrical, persistent, but not firm, and the hemorrhage being so great as to demand other than ordinary remedies, I proceeded to extract the placenta manually at 8.45 A. M. It was found attached in the median line, anteriorly, extending directly upward from near the os to the fundus uteri, the attachment narrow in its whole extent, and requiring moderate effort to secure its severance. A firm globular contraction ensued, with immediate relief to the hemorrhage.

The afterbirth was oblong, resembling the battledore variety, and was not notably denser in texture than usual.

The patient recovered rapidly without an untoward symptom.

CASE II. Mrs. W., æt. 24, third pregnancy, was found having regular pains about the end of the sixth month. She had been feeble during the early months, but knew of no cause for untimely labor. Her pains were not severe, but at 5 P. M. she discharged the amniotic fluid in vast quantity, birth soon following of an ill-nourished child, which lived nearly twenty-four hours. Cylindrical uterine contraction followed, with no hemorrhage. Ergot given in gr. xx doses, once in twenty minutes, secured (after the third) violent action, without resulting in the extrusion of the placenta. Chloroform was given at 7 P. M., and after much difficulty, the placenta seized and delivered

manually. Its shape, texture and place of attachment was identical with that before described.

The patient recovered slowly, with no unusual symptom, unless in the peculiar offensiveness of the lochia, which persisted for about four weeks.

This lady had attained the same period in her first pregnancy when she began to be troubled with discharges of a fluid per vaginam, which resembled, and probably was, the liquor amnii. They occurred always at night, often waking her from sound sleep, and resulted after three weeks in the birth of a fœtus, which had obviously deceased many days before. The placenta was so disintegrated as to prevent examination.

Her second pregnancy was normal in every respect, and the child perfect and healthy in an extraordinary degree.

CASE III. Mrs. S., æt. 39, second pregnancy, was in pains—slight and infrequent—for twelve hours before I saw her, at 5 A. M. Os dilated and membranes protruding. Liquor amnii was in great excess, and after its discharge, the contractions were more efficient. Birth took place at 9 A. M. Alarming hemorrhage following, and the uterus assuming the hour-glass form, I delivered the placenta at once by the usual operation.

Cold water, and ice externally and within the vagina, were necessary before sufficient contraction of the uterine fibre was induced, to secure the patient from further loss of blood. Even then the form of the womb was cylindrical, extending upward nearly to the umbilicus.

The location of the placenta was the same as in the other cases; it was very narrow in its line of attachment, and had been partially separated at the sides, where, evidently, the hemorrhage had originated. No evidences of inflammation were present, and with the exception of the tearing of the uterine surface in the process of removal, the appearance of the whole was normal.

This patient recovered rapidly, though suffering from chill and subsequent fever on the fifth and ninth days.

The peculiar interest of these cases rests in the common fact of a great excess in the quantity of liquor amnii; inertia of the

uterus; retention of the placenta; the locality of its attachment, and finally, the normal condition of its texture.

My own impression of the relationship of these facts is as follows: That the great distention of the uterus, by reason of what might properly be called the "dropsy of the amnion," occasioned the uterine inertia; that the longitudinal muscular fibres, never very largely developed, were paralyzed, giving rise to the peculiar cylindrical form of the uterine contraction, and its inability to extrude the placenta; while the non-inflammatory nature of the placental attachment would tend to the belief that its retention was due to its peculiar shape and locality, in connection with inertia of the uterus, and loss of power in its longitudinal axis.

Practically, the concurrence of such phenomena as preceded birth in these cases should teach the accoucheur the presence of greater risk from hemorrhage, and the stronger probability of an operation being requisite for the delivery of the placenta.

A Case of Placenta Prævia. By J. W. BROOKS, M. D., Chicago.

TO THE EDITORS OF THE CHICAGO MEDICAL JOURNAL.

Allow me briefly to present the notes of a recent case of placenta prævia. At twenty minutes before 2 o'clock P. M., March 26th, 1866, the writer was requested to visit Mrs. Mc-C——n, the friends being greatly alarmed by the amount of her flooding. On my arrival, fifteen minutes before 2 o'clock P. M., they gave me the following account: She commenced flooding a little before 2 A. M., (having suffered from attacks of the same for six weeks previously.) About 7 or 8 o'clock A. M. a physician was called, who made a prescription and left. The prescription being used, and failing to arrest the hemorrhage, I was called at the time before stated, and found her sinking rapidly—restless, pale, pulse feeble, gasping and gaping alternately. On examination, I found the os uteri rigid and undilated; abdomen tense; feeble pain occurring at intervals. Gave one teaspoonful of tinct. camphor in water, plugged the vagina, and sent for my friend, Prof. DeL. Miller, requesting his im-

mediate presence, and ordered camphor water to be freely administered. In forty minutes she had rallied considerably. At the expiration of one hour, a very brisk labor pain expelled a coagulum as large or larger than a pint cup. This was immediately followed by syncope. Examining now, I found the os dilated half an inch, with the placenta attached directly over it. At the same time came another pain with a fearful flow of blood. I restored the plug, grasped the fundus uteri, and pressed my knuckle on the aorta. Dr. M. reaching the house at this time, we found the os dilated nearly one and a half inches, and proceeded forthwith to perforate the placenta and to deliver by podalic version. The flow of blood and liquor amnii was very large.

The placenta followed close upon the child. The mother was well bandaged immediately after the delivery. Nothing unusual has since occurred. The placenta proved to have been perforated in or near the centre.

The child was born in a state of asphyxia. At the expiration, however, of a few minutes it gave a slight gasp, which was soon followed by another. From this the intervals gradually diminished as we used a warm bath and then cold douches, with occasional artificial respiration, till, in one hour and a quarter, we had the pleasure of seeing respirationfully established in a fine healthy boy.

Acting in accordance with the mottoes of Hippocrates—

"Time flies;" "The occasion is fleeting,"—

I believe that the practical lesson to be deduced from this case and its results is, that, in all similar cases, *decision and prompt action are positively necessary* for the safety of mother and child.

Puerperal Anasarca. By J. P. Ross, M. D., Physician to the Cook County Hospital.

(Read before the Chicago Medical Society.)

On the evening of Dec. 17, 1865, I was called in great haste to visit Mrs. P——, living half a block from my residence. I hastened at once to the bedside of the patient, and found her in convulsions. The extremities on both sides were affected

with clonic spasms; eyes rolled upward and outwards; stertorous breathing and moaning; a bloody frothing at the mouth; and in a state of unconsciousness. Efforts were simply used to prevent the patient from injuring herself. The paroxysm lasted from ten to fifteen minutes, when she recovered with considerable mental confusion and delirium.

On making further examination, I found the eyelids and face puffy, and the feet and legs swollen. She was in the seventh month of utero-gestation, and was the mother of one child. The nurse states that the dropsical symptoms had been observed for a fortnight, and for several days she had been very irritable, complained much of headache, and had delirium at night. The urine was scanty, with pain in passing it, and high colored. She had complained of pain in the small of the back. A homœopathic professor of midwifery had been in daily attendance, and was engaged to wait upon the patient through her lying-in. On learning the situation of affairs, I stated to the friends the grave nature of the case and the necessity for active interference, and advised them, if they did not propose to make a permanent change of physicians, to send at once for their medical attendant. This they thought best to do, and after remaining an hour, administering from time to time chloroform by inhalation, the patient got into a quiet sleep and I took my leave.

On the 1st of January, 1866—a fortnight from my first visit—I was waited upon by the husband of the patient, who stated that his wife was no better, and desired me to see her at once and take charge of the case. At this time the dropsical condition had very much increased, the serous cavities contained a quantity of fluid—especially the peritoneal;—the gravid uterus could be floated from side to side and from before backwards, and made only a smaller portion of the contents of the abdominal cavity, the larger portion consisting in effused fluid. Headache, delirium and convulsive twitchings occurred every night, to overcome which the patient had used by inhalation large quantities of chloroform in addition to infinitesimals. The pulsations of the fœtal heart were distinctly heard. The urine was scanty, and on boiling it a large coagulum was formed,

which did not dissolve by the addition of nitric acid. The condition of the patient was deplorable, and had steadily grown worse. It became a serious question to me if the chances of recovery for the patient would not be promoted by the induction of premature delivery. A consultation was asked for.

Jan. 2d. Dr. Byford in council. After a careful investigation of the case, Dr. B. concluded, 1st, That the pressure of the gravid uterus upon the kidneys was not the cause of the renal affection; 2d, That this disease occurred independent of the state of pregnancy; and, 3d, That the chances of recovery from it would not be greatly promoted by delivery. It was decided to give active treatment a trial in removing the uræmia and renal congestion. Ordered 10 grs. each of calomel and jalap, to be followed in six hours with a bottle of the solution of the citrate of magnesia.

Jan. 3d. 9 o'clock A. M. Cathartic operated thoroughly; urine scanty. Ordered 10 grs. of acet. potash and 10 minims of the wine of colchicum seeds every four hours, and also sol. cit. magnes. in sufficient quantity to keep up a slight drain from the bowels. In the evening the patient complained of pain at the top of the head; was restless and feverish. Ordered 10 grs. Dover powder at once, and a vapor bath: which was directed for the occasion by placing a lighted alcohol lamp under a hard-bottomed chair, on which the patient was to be seated—*in puris naturalibus*—and surrounded with blankets to confine the vapor around the body; and to remain there as long as the strength of the patient would hold out.

Jan. 4th. Patient rested well; says she "feels better than she has in a month, but too weak to raise a finger." Œdema seems less; occasional slight uterine contractions; urine still scanty and albuminous; continue the colchicum and potash. In the evening, ordered the vapor bath repeated, notwithstanding the patient protested that she was too weak, and it would surely bring on labor.

Jan. 5th. 9 o'clock A. M. Labor pains had continued since the bath regularly every fifteen or twenty minutes. On examination, found liquor amnii evacuated; presentation natural; and the os uteri soft and yielding, and dilated to a diameter of

two or two and a half inches. At 11 o'clock A. M., she was delivered of a living child, which had reached about eight months of fœtal life.

During the whole period of labor no indications of convulsions were manifested, yet chloroform was used during the larger portion of the time during the existence of the pains, and six ounces were used up. The usual services were rendered after delivery, and the patient was left comfortable. No medicine was prescribed.

Jan. 6th. Patient feels well; urine passed three times during the night, very copiously. No medicine.

Jan. 7th. Bowels moved several times, watery discharges; urine free; dropsical effusion very much less; mammary secretion established; pulse 80, soft; complains of exhaustion. Ordered tr. ferri mur., gtts. xii., ter. die., and good nutriment.

Jan. 9th. Dropsy almost entirely gone; urine contains but a trace of albumen; functions normal; complains of weakness. Ordered quiniæ, gr. ii, ferri sul., gr. i., ext. nux vomica, gr. ss., in pil. ter. die. and porter.

Jan. 18th. Dressed and about the house; recovery complete. Infant doing well.

Remarks.—The above case is interesting, in the first place, as showing the results of treatment. For the first fortnight, the patient was under trial of homœopathic remedies. That these were perfectly inert is evident from the disease making steady progress until it culminated in convulsions. During the following fortnight the treatment was the same (which was nil) with the addition of chloroform by inhalation. This remedy seemed to render the nervous system more tolerant of the uræmic poison, but did not aid, in any way, in getting rid of it, or in removing that state of the kidneys which produced the toxæmia and dropsy. On the contrary, the disease continued to grow worse. Then a moderately heroic treatment was tried, which consisted in remedies to act thoroughly on the bowels, kidneys and skin. These were followed by results which we believe were produced by the treatment, and were, 1st, premature delivery, which progressed to a successful termination, not a symptom of convulsions showing itself; 2dly, the

renal congestion gave way rapidly, which was manifested by a free secretion of urine and a disappearance of albumen; and, 3dly, the intestinal mucous membrane coming to the aid of the kidneys; the two relieved the system of dropsy, and the patient most rapidly recovered from a dangerous and alarming condition.

The independence of the morbus Brightii of the state of pregnancy in this and similar cases may be fairly questioned. Keeping in mind the length of time which the disease had lasted, and the results produced, mark how rapidly recovery occurred after delivery, and mark another fact, that no permanent improvement occurred in the quality or quantity of urine until delivery was effected. In these particulars this case does not stand alone, for both facts were patent in all the cases I have treated for several years.

In what way utero-gestation produces this morbid condition of the kidneys may not be known. The theory of pressure of the gravid uterus upon the renal veins could be scarcely adopted in this case, for the walls of the abdomen were not tense, nor the uterus confined in any way, but seemed to float—frequently changing its position—in the fluid of the peritoneal cavity.

Question.—What is the cause (or what are the causes) of the complication of Bright's disease with utero-gestation?

Retention of the Catamenia from Obstruction. By F. C. Robinson, M. D., of Wyanet, Ill.

In February last I was consulted by Miss W., aged 15, upon the non-appearance of the menses, which the lady attributed to cold taken during a former flow. Upon inquiry I learned that she menstruated for the first time in August, 1865, and continued regular until November, when it ceased. Since that time she had had the menstrual molimen every four weeks with much pain and constitutional suffering, increasing in intensity at every successive period, but without any discharge. The girl being so positive that cold was the cause of the suppression, I ordered a cathartic, followed by balsam copaiba, in doses of

twenty-five drops every eight hours, hot pediluvial and hip baths, and directed her to inform me if she obtained no relief.

In the evening of March 3d, I was again called to see the lady, who had been getting worse since my first visit, and found her suffering the most excruciating pain in the uterus, abdomen and thighs—at times so severe as to make her rave as in a state of delirium. I mistrusted the cause of her pain to be from obstruction, and stating my fears to the patient, suggested an examination. The external organs of generation were normal; the vagina small and contracted, and an inch and a half from its orifice was completely closed by a firm, elastic membrane, forming a cul de sac, point upwards. I administered chloroform, and using a director and my index finger, ruptured the membrane, causing slight hemorrhage, but, as yet, no relief. Above this membrane the vagina was crossed by several fibrous bands, which I also divided, revealing a distended uterus. It was lower in the pelvis, and pressing upon the neck of the bladder, caused irritation and a desire for frequent micturition, which I learned subsequently. The os uteri was also closed by a membrane similar to the one above mentioned, and which I succeeded in penetrating, using a female catheter, when about sixteen ounces of reddish-brown, tenacious fluid, or menses in a condensed form, escaped. The pain ceased in a few hours, and, except a slight nausea from the chloroform, the girl did well, and was soon able to resume her duties, well satisfied with her condition and the relief she had obtained.

From such information as I can get, it is impossible to diagnose the cause of this double occlusion. The fact of previous menstruation precludes the idea of its being congenital, and there being no evidence of injury, I can only account for it by saying it is an anomaly of nature, governed by the same physiological laws necessary to the building and repair of the human economy, being varied only by the organization of plastic lymph upon a slightly-inflamed mucous surface.

CLINICAL REPORTS.

RUSH MEDICAL COLLEGE DISPENSARY—SURGICAL CLINIC BY DR. E. POWELL.

A Fibrous Tumor of the Right Side of the Face, involving the Parotid Gland and Common Carotid Artery, of Twenty-one Years' Growth—Removal—Death on the Fourth Day from an Accidental Hemorrhage.

Giles Hutchinson, of Illinois, about 41 years of age, came to the College Clinic, January 15th, 1866, for the purpose of having removed an immense tumor of the right parotid region.

As imperfectly shown in the cut, it elevated the ear more than an inch, extending from the zygoma downwards over the sheath of the great vessels to within an inch and a half of the clavicle, extending anteriorly considerably in front of masseter muscle, and posteriorly as far as the transverse processes of the upper cervical vertebræ.

The circumference was eighteen inches; its diameters six and eight inches. This large mass was firm, whilst its short projecting lobes were as unyielding as bone.

The steady growth, the impediment to the motions of the jaws and throat, as well as the pain experienced in the part, determined the patient upon the removal of the tumor as the only relief from a speedy and otherwise inevitable death.

Assisted by Drs. Lackey, Durham, and several other physicians, the operation was performed before the class. It was commenced by a vertical incision from a point a little in front of the ear to an inch below its lower border. The integument was then stripped from its surface with the fingers, and the

sterno-mastoid, which was inserted into and firmly bound down in its lower portion, was torn across. At this stage of the operation, a ligature was placed upon the common carotid artery, when, by strong and repeated efforts, the tumor was wrenched from its bed. There was very little hemorrhage from the recurrent circulation. During the operation two other small vessels besides the main trunks were tied.

The cavity was large, showing completely the walls of the space occupied by the parotid gland and the styloid process, while it extended down nearly to the clavicle. After the first shock of the operation had subsided, the patient experienced little constitutional irritation, suffering chiefly from tenderness of the pharynx whilst swallowing.

January 19th. The case had progressed extremely well up to this time, when, after rather a full meal, the patient was taken with vomiting, during which the artery was ruptured, and a profuse hemorrhage took place. A ligature was re-applied, but the patient died in twelve hours, exhausted by the loss of blood.

PROCEEDINGS OF MEDICAL SOCIETIES.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting of March 28, 1866—Dr. F. H. Hamilton, Pres't, in the Chair.

Dr. E. Bradley presented a small fragment of the squamous portion of the left temporal bone, removed from the skull of a rebel soldier who had been wounded in that region by a spent ball. Upon the receipt of the injury he lost the power of speech, and remained in that condition for ten days. The fragment of bone was then removed, and material relief followed. A marked hesitancy of speech remained for some time after the operation; but this disappeared by the time that the wound had healed.

Dr. Rogers remarked that the precise situation of the fracture described would be an interesting point to determine, as bearing upon the question of the precise location of the organ of speech. Dr. Bradley was unable to state the exact location of the wound,

having received from the gentleman who observed the case no other particulars than those already given.

Dr. Bradley exhibited a specimen of calcified falx cerebri, from a patient, 50 years of age, who had been subject to epileptic convulsions, and who had died of chronic meningitis. The dura mater was thickly sprinkled with the calcified plates.

In connexion with this case the Doctor mentioned a recent patient of his who died of apoplexy at the N. Y. Hospital. He had fallen in convulsions while walking in the street, and had been conveyed, unconscious, to the hospital, with all the symptoms of a well marked apoplectic seizure. The post-mortem examination disclosed a remarkable development of the crista galli, which invaded the left cerebral lobe. The right ventricle was ruptured and filled with clotted blood; and four ounces of thick blood were found beneath the meninges. The question was suggested whether the apoplexy had not been caused by the presence of this bony growth.

Dr. O. H. Smith exhibited a specimen of ulceration of the duodenum, from a young lady, 27 years of age, who suffered, one year ago, from typhoid fever. She recovered in part from this, went into the country, and was slowly regaining her strength, when, in December last, she caught a cold, which was followed by a severe chill and febrile symptoms. Great pain in the stomach and right hypochondrium, with vomiting, ensued; and the pain and vomiting continued for two weeks. Dr. Smith saw her about the first of January last, when she was brought to the city. The pain still continued, and the patient vomited nearly all the ingesta; the pulse was very rapid, and the general appearance of the case unfavorable. Opium and quinine were exhibited, but without effect; and Dr. Smith thought that the lady was probably affected with cancer of the stomach. Her memory and intellectual powers now failed rapidly; near the first of March she had a convulsion, followed by partial dextral hemiplegia; and she remained in this condition until the 22d of March, when she died.

Autopsy twenty-four hours after death. The stomach was found to be healthy. The peritoneal surface was covered with a lymphy exudation, apparently the sequel of an old peritonitis.

Adhesion was found between the abdominal walls and three or four inches of the duodenum; and on breaking it down, pus oozed into the cavity of the abdomen. In the midst of this adhesion, and about six inches from the stomach, there was ulceration and perforation of the gut. This lesion the Doctor could only account for by supposing the duodenal glands to have been poisoned by the typhoid virus.

Dr. Markoe presented the calvarium of a patient whom he had trephined for epilepsy; remarking that the specimen was interesting, not only in reference to the method of treatment employed, but also in connexion with the cranial necrosis that occurred in the history of the case. The patient was a boy, 17 years of age. At the age of five years he received a wound upon the left forehead by being run over; no fracture, however, occurred, and the wound healed rapidly. But in six months after this accident, the boy became rather suddenly paralyzed on the right side. The hemiplegia was complete. He recovered somewhat, after a few weeks, from this condition, but did not entirely regain his former health; he suffered from headache, when the scar on his forehead invariably reddened; his memory was weakened, and his activity diminished; yet he was able to attend school with his fellows. When 14 years old he had epileptiform convulsions, which recurred at intervals of three to seven days; latterly they took place with some regularity on Sundays; and his intellect was sinking into that state which is so often the concomitant of confirmed epilepsy.

Such was the condition of the patient when Dr. Markoe was requested to see him, about five months ago. The case seemed to be one in which the disease might fairly be supposed to depend upon the injury received in childhood; statistics gave a reasonable promise that relief might be afforded by operative procedure; and it was decided to make the attempt, the boy's parents assenting to any plan that gave prospect of benefit to the sufferer. On the 20th October, 1865, two discs of bone were removed by the trephine, and an intervening bridge of bone was displaced by the *ronguer;* leaving an opening in the skull about three-quarters by two inches. The edges of the opening were carefully smoothed. The immediate result of the

operation was satisfactory; and no convulsions occurred for a month. A very slight one happened at the end of that time; and then for two weeks longer he was free from epileptic seizure; the wound healing favorably meanwhile. Pyæmia, however, then began to prevail in the hospital; and this patient suffered with the rest. The pus began to burrow under the scalp, in spite of counter-openings and of pressure; the bone became extensively denuded and necrosed; the wound assumed a bad condition, the patient sank, and finally died about a week ago, having been in a comatose state for nearly a fortnight. During this time a fungus cerebri had sprung up and attained the size of a small orange.

The autopsy showed the hernia cerebri as a pultaceous reddish mass. Below that portion of the hemispheres from which it sprung was a tract of soft and greenish-yellow cerebral substance; but no abscess was found, upon careful search, in this part of the brain. On the right side, however, corresponding in situation with the wound upon the left side, was a deep-seated abscess, which contained two ounces of laudable pus. The calvarium was extensively necrosed; *but nature had made no effort to separate the sequestrum;* a circumstance which Dr. Markoe regarded as very remarkable. He had observed this phenomenon in the case of syphilitic necrosis; but never before when the disease was of traumatic origin.

In answer to a question, Dr. M. stated that the dura mater was not invaded by the trephine; and that the ulceration which afterward took place in the membranes, allowing the development of the fungus, was precisely defined by the margins of the opening in the bone.

Dr. Hamilton thought that non-separation, in traumatic necrosis, was the result of extreme enfeeblement of the constitution; and referred to the frequent cases of osteo-myelitis which have been observed during the late rebellion. In these cases, which always occurred in broken or feeble constitutions, the disease frequently progressed so far as to involve the entire bone of an extremity.

Dr. W. Beach, jr., presented a large tumor which had been removed from the abdominal cavity, supposing it to be ovarian,

by Dr. Huckenberg, of Coxsackie, N. Y. The patient died thirty-nine hours after the operation.

Dr. Krackowizer, on examining the specimen, remarked that it was a fibrous tumor of the uterus, and thought that a detailed history of the case would be interesting. Dr. Markoe observed that the evident mistake in diagnosis that had been made showed the necessity of a careful examination with the uterine sound previous to operating, in cases of suspected ovarian disease.

Dr. Krackowizer presented a segment of a fore-arm which had been removed by amputation from a soldier who had been wounded at Gettysburg, and whose right arm had been amputated several days after the injury. The stump took several months in healing. When the cicatrization was nearly completed, the patient noticed two nodules upon the stump, small, movable and painful. They increased in size and in sensitiveness, and at last allowed him no rest. By the kindness of Dr. Marsh, Dr. Krackowizer saw the patient at the "Lincoln Home;" concluded that neuroma existed; and as the stump was badly shaped, concluded to remove the disease by reamputation. This being performed, the principal nerves of the extremity were found to terminate in the sensitive nodules already described.

The Society went into executive session.

AMERICAN MEDICAL ASSOCIATION.

FIRST DAY.—MAY 1.

The Seventeenth Annual Meeting of the American Medical Association was held in the city of Baltimore, at Concordia Hall.

The Association was called to order at 11 A. M., Tuesday, May 1, by the President, Dr. D. Humphrey Storer, of Boston.

On motion of Dr. Bissell, of New York, the ex-Presidents and ex-Vice Presidents were invited to take seats on the platform.

The Rev. Dr. Spies, of Baltimore, was introduced, and opened the meeting with prayer.

Dr. C. C. Cox, on behalf of the Committee of Arrangements, in an eloquent address, gave a warm welcome to the Association, and hoped that when the short stay of the members was ended, they would have cause to retain kindly remembrances of the

Monumental City. He expressed his regret that so few delegates from the South were present, and hoped that now that peace had come, they would again return, and aid the Association with their learning and experience in the great work the profession had before it. He paid a high compliment to the fidelity of the surgeons on both sides during the late war, and referred in pathetic terms to the many learned men who have been taken away by death since the Association met in Baltimore eighteen years ago, and closed by again warmly welcoming the visiting brethren.

THE CASE OF DR. MONTROSE A. PALLEN.

Dr. Cox then offered certain documents exculpating Dr. M. A. Pallen of Missouri from the charges brought against him at Boston, and for which he was then expelled.

On motion of Dr. W. Jewell, of Pennsylvania, the order of business was suspended, in order to allow these to be received.

Dr. Cox moved that the papers be referred to the Committee on Medical Ethics, with a request that they report promptly.

Dr. Ordway was disinclined to have the subject go before a committee, and contended that Dr. Pallen should be as speedily and publicly invited to a participation in the business of the Association, as he had been hastily and unjustly expelled at the previous meeting.

Dr. Davis, of Illinois, favored the reference, because he thought, as the action of last year had been placed upon the record of the Association, that all the action reviewing the work of that meeting affecting Dr. Pallen should be spread upon the record. He would like to have it referred to the Committee on Ethics, with instructions to report as early as practicable.

After much discussion, the whole matter was finally referred to the Committee on Ethics, with instructions to report forthwith.

Dr. Worthington Hooker, of New Haven, stated that he was the only member of that committee present; whereupon Dr. Brinsmade, of New York, and Dr. Davis, of Illinois, were added to the committee.

Dr. Thomas E. Bond, of Baltimore, moved that the committee to whom was referred the case of Dr. Pallen be instructed to report the expression of most profound regret that the Association should have been hurried into its unjust action to Dr. Pallen; and that they express the hope that Dr. Pallen would accept such acknowledgment as an expression of a frank apology for the great wrong done him. This, together with an amendment, was laid on the table.

Dr. William B. Atkinson, of Philadelphia, the Permanent Secretary, then called the roll of members.

On motion of Dr. Cox, it was determined that the successive morning sessions of the body should commence at nine o'clock. He afterwards announced the arrangements which had been made for the meeting of the several sections during the afternoons.

Also, on motion of Dr. Cox, Dr. James E. Reeves was invited to a seat with the convention.

Dr. Bond on motion, then brought up his motion with reference to Dr. Pallen.

Dr. Storer, of Massachusetts, explained that the charge against him was not of disloyalty, but that he had been guilty of the grossest unprofessional conduct in an attempt to poison the Croton Aqueduct.

Dr. Jewell, of Philadelphia, called the gentleman to order, saying that the resolution of Dr. Bond was out of order.

Dr. Holton, of Vermont, thought it rather strange to appoint a committee to report in the premises, and then instruct them how to report.

The suggestion of Dr. Bond, which had been incorporated into a resolution, was finally laid on the table.

Dr. Hooker, Chairman of the Committee on Ethics, then presented the following report, which, after being warmly discussed by Drs. Owens and Bond of Maryland, and Tyler of Washington, was finally adopted:

"The Committee to whom was referred the papers in relation to the expulsion of Dr. Montrose A. Pallen, at the meeting of the Association in Boston, respectfully report:

"That they have examined the documents and evidence referred to the Committee, embracing papers endorsed by General U. S. Grant, the Vice-Consul of the United States at Montreal, and many citizens of Missouri, and are fully satisfied that the statements on which his expulsion was based were entirely unfounded; and, therefore, regretting the injustice done, both to Dr. Pallen and the Association, we recommend the following resolution:

"*Resolved*, That the preamble and resolution adopted by the Association at its annual meeting in Boston, June, 1865, expelling Dr Pallen, be hereby rescinded; and that Dr. Montrose A. Pallen be restored to his previous membership in the Association."

On motion of Dr. Ordway, a Committee of Three was appointed to wait upon Dr. Pallen, and inform him of the action

taken in his case; and on motion of Dr. Ewens, Dr. Cox was made chairman of said committee.

Dr. Pallen was then presented to the Association, and thanked them in an appropriate and feeling manner for the action they had taken in regard to his case.

THE PRESIDENT'S ADDRESS.

Dr. D. Humphrey Storer, the President, followed with his annual address. His subject was that of Specialties in Medicine. The ground which he took was one of encouragement to all such worthy and qualified young men as chose to confine their particular attention to one branch. The address was a well written and interesting one, and commanded the most respectful attention of all present.

On motion of Dr. Holton, of Vermont, the thanks of the Association were tendered to the President, and the address was referred to the Committee on Publication.

The reports of the Special Committees were then called for, and all the papers that were presented were referred to appropriate sections.

The following voluntary papers were then in turn offered, and in like manner referred: "On Luxation of the Hip-Joint, Nine Months' Standing," etc., by Dr. L. A. Sayre, of N. Y.; "On Improvements in Water Pipes," by Dr: J. C. Draper, N. Y.; "On Extirpation of the Uterus," by Dr. H. R. Storer, of Boston; "On Permanganate of Potassa as a Purifier," by Dr. Craig, of D. C.; "On the Application of Local Anæsthesia to Practical Medicine," by Dr. J. Solis Cohen, of Philadelphia; "On Aluminium in Dentistry," by Dr. Mason, of Mass.; and "On Exsection of Lower Jaw," by Dr. D. C. Enos, of N. Y.

On motion of Dr. Cox, Dr. E. Brown-Sequard was invited to deliver a lecture before the Association upon the treatment of nervous diseases at 11 A. M., on Wednesday.

On motion of Dr. Davis, (Ill.) Dr. H. Marsden, of Quebec, was elected a member by invitation, and invited to a seat upon the platform.

The meeting then adjourned to meet at 9 A. M. on Wednesday.

PROMENADE CONCERT.

During the evening a promenade concert was given to the members of the Association by the Committee of Arrangements, at Concordia Hall. Although the evening was a stormy one, the attendance of ladies and gentlemen was unexpectedly large. At the conclusion of the concert, the company was regaled by a magnificent supper.

SECOND DAY.—MAY 2.

The Association was called to order by the President, Dr. D. H. Storer, at 8 A. M.

The Committee on Epidemics, Meteorology, etc., having been called upon, Dr. Davis stated that Dr. Hamill had presented a report which he had taken to the Section on Epidemics, etc.

Dr. Cox made an additional report from the Committee of Arrangements on Railroads, that invitations had been received from Drs. Smith and Donelson, for the members of the Association to visit their houses that evening. He also recommended the following gentlemen as members by invitation: Drs. Jno. A. Reed, W. Whitridge, L. M. Eastman, of Baltimore; Peter Parker, of China. They were elected.

On motion of Dr. Davis, the order of business was suspended.

The report of the Committee on Publication was read and accepted.

On motion of Dr. Sayre, of New York, the Publishing Committee were authorized to enforce strictly due care in regard to proofs, etc.

The Treasurer then read his report, which was referred to the Committee on Publication.

On motion, the order of business was resumed.

On motion of Dr. Davis, a recess of fifteen minutes was taken by the Association, to allow of the appointment of members of the Nominating Committee.

THE NOMINATING COMMITTEE.

On the resumption of business, the following members of that Committee were announced:

J. C. Weston, Me.; J. C. Eastman, N. H.; Wm. McCollim, Vt.; J. R. Bronson, Mass.; D. King, R. I.; W. Woodruff, Conn.; J. C. Hutchinson, N. Y.; W. Pierson, Jr., N. J.; H. F. Askew, Del.; John L. Atlee, Pa.; J. J. Cockrill, Md.; M. A. Pallen, Mo.; N. S. Davis, Ill.; W. Lockhart, Ind.; J. M. Withercone, Iowa; N. R. Bozeman, Ala.; C. M. Stockwell, Mich.; H. Van Duzen, Wis.; T. A. Atchison, Tenn.; G. Fries, Ohio; G. Tyler, D. C.; W. M. Charters, Ga.; J. Simpson, U. S. A.; N. Pinkney, U. S. N.; Greensville Dowell, Texas.

Dr. W. Hooker offered the following resolution, which was unanimously adopted:

"*Resolved*, That no report or other paper shall be presented to this Association unless it is so prepared that it can be put at once into the hands of the Secretary, to be transmitted to the Committee on Publication."

Dr. Wistar, of Pa., offered the following, which was adopted:

"*Resolved*, That Drs. Grafton Tyler, W. P. Johnson, and Jas. M. Toner, of D. C., be a Committee to procure a room in the Smithsonian Institution, for the preservation of the archives of the Association."

The Committee on Medical Education not having prepared a report, Dr. J. F. Hibberd offered instead thereof the following preamble and resolution, and moved that it be adopted as the sentiment of the Association:

"*Whereas*, Two-thirds of the Medical Colleges of the States of Ohio, Michigan, Illinois, Iowa, Missouri, Kentucky, and Tennessee, by delegates in convention assembled in Cincinnati, on the 24th of April ultimo, did, by resolution unanimously adopted, declare their willingness to make their annual college sessions to continue for six months, and to establish a uniform rate of fees, if the other principal colleges of the country will co-operate; now, therefore,

"*Resolved*, That the American Medical Association hereby expresses its warmest approbation of the action of the above recited colleges, and expresses the hope that every Medical College in the Union will coneur in the proposition thus made."

On motion of Dr. Taylor, of Iowa, its consideration was postponed till 11 A. M. on Thursday, to be acted upon in Committee of the Whole.

Dr. C. A. Lee, of N. Y., commenced reading his report upon Medical Literature. He divided up his subject as follows: I. Periodical Medical Press. II. Medical Literature of the War. III. Literature of the Sanitary Commission and of Sanitary Sciences. IV. State and County Society Transactions. V. Literature of Special Subjects and of Specialties. VI. Literature of Pharmacy and Materia Medica. VII. Of Vital Statistics. VIII. Of Life Assurances. IX. And of Introductory Lectures.

He was interrupted at 11 for the regular order of business, which was the lecture of Dr. Brown-Sequard, on the Treatment of Functional and Organic Diseases of the Nerves.

On motion of Dr. Raphael, of N. Y., the thanks of the Association were tendered to Dr. Brown-Sequard for his interesting, able and eminently practical lecture, and he was requested to furnish an abstract for publication.

Dr. C. A. Lee then resumed the reading of his report.

After this had continued for some time, on motion of Dr. Toner, the further reading was discontinued, and the paper referred to the Committee on Publication.

Dr. Gross, Chairman of Committee on Medical Education,

reported that he had not prepared a report, and asked that the Committee be discharged, which was granted.

REPORT OF PRIZE COMMITTEE.

Dr. E. Eliot, Secretary of the Committee on Prize Essays, read the report of that Committee.

On breaking the seals, Dr. W. F. Thoms, of New York city, was ascertained to be the author of the "Essay on Health in Cities," etc., and was entitled to the first prize, and Dr. S. R. Percy, of N. Y., on "Digitaline," etc., to the second.

On motion, the paper on Angular Curvature of the Spine was referred to the Section on Surgery.

The report of the Committee on Medical Ethics having been offered, it was made the special business for 9.30 on Thursday.

Dr. Marsden, of Canada, having been announced as desirous of making some remarks on Cholera,

On motion, it was agreed that he should follow immediately after the report on Medical Ethics.

Dr. Cohen offered a paper on Paralysis of the Vocal Chords and Aphonia, etc. Referred to the Section on Surgery.

Dr. H. R. Storer offered a paper on the "Clamp Shield," an instrument designed to lessen the dangers of extirpation of the uterus by abdominal section.

Dr. Bozeman, of Ala., was introduced to the Association, and on motion of Dr. Holton, he was made the member of the Committee on Nominations for Alabama.

Dr. Askew offered the following resolution on the death of Dr. Cowper, which was unanimously adopted:

"*Whereas*, We have heard with profound regret of the death of our deservedly esteemed friend and associate, James Cowper, M. D., of Delaware, late Vice-President, and one of the founders of the National Medical Association; and whereas, we desire to express our high appreciation of his worth as a man, and valuable and untiring energy in the cause of medical science; mild, modest and unassuming, of devoted piety, he was firm, constant and reliable; a strict adherent to the ethics of the profession, he occupied a front rank, and died beloved, respected and lamented by all who knew him,

"*Resolved*, That in the death of Dr. James Cowper we have lost a friend and brother, and that we sincerely and deeply condole with his sorrow-stricken widow and family, and that the Secretary be authorized to forward a certified copy of these resolutions to his family."

Dr. Toner, of D. C., offered the following resolution, which was adopted:

"*Resolved*, That instead of yearly reprinting the list of members of the American Medical Association with the Transactions of the same, the Secretary be instructed to prepare and have printed in pamphlet form, a triennial alphabetical catalogue, containing the Constitution of the Association, and a list of members with their full names, designating their residences, the year of their admission, arrearage of yearly dues, the offices they may have held in this body, and in case of death or resignation, the year, and distribute the same among the contributing members."

On motion, the resolution was referred to Committee on Publication.

Dr. J. C. Hughes, of Iowa, offered a paper on Lithotomy, which was referred to Section on Surgery.

Dr. Taylor, of Iowa, introduced a resolution for the appointment by the President of the Association of a member from each State, to memorialize Congress for an appropriation to publish the reports and documents of the Surgeon-General of the United States.

Dr. Pallen recommended that the reports and documents of the like character connected with the rebel army, be also referred to the same committee for access to the same. Dr. Pallen, after some discussion, withdrew his amendment.

The original motion was carried.

It was then moved that the President announce said committee on Thursday morning.

The meeting then adjourned.

SECOND EVENING.—SOIREES AT PRIVATE RESIDENCES.

The evening was occupied by the members of the Association in responding to the kind invitations of the physicians of Baltimore to soirees at their respective residences. The houses of Drs. C. C. Cox, Bond, Surgeon Simpson, U. S. A., Professor N. R. Smith, and others, were thrown open. The entertainments were of such a character as reflected great credit upon the taste and hospitality of the gentlemen concerned.

THIRD DAY.—MAY 3.

The Association was called to order at 9 A. M. by the President, after which, the announcement of the members of the Committee to memorialize Congress on the publication of the surgical history of the war, was made.

Dr. C. C. Cox, of the Committee on Necrology, reported progress, and on motion of Dr. Hibbard, permission was given the reporter to send the report when ready to the Committee on Publication.

THE DEATH OF PROFESSOR JOSEPH M. SMITH, OF NEW YORK.

Dr. Alfred C. Post offered the following, which was unanimously adopted:

"*Resolved*, That the Association has heard with sincere regret of the death of its late distinguished member, Joseph M. Smith, M. D., of New York:

"*Resolved*, That we cherish his memory as that of a learned and skilful cultivator of medical science, an able and successful teacher and writer, an upright and honorable man, and a patriotic and public-spirited citizen.

"*Resolved*, That the Secretary communicate to the family of the deceased, an expression of our sympathy with them in their bereavement."

Dr. C. A. Lee arose to speak to these resolutions, which he did with much feeling. He hardly thought that it was necessary to say anything in regard to the life or character of such an excellent and well-beloved man, but as he had been intimately acquainted with him for over thirty years, he did not think it out of place for him to say a few words. After referring in an appropriate manner to his acquaintance with the deceased, he remarked "that a more pure, upright and conscientious man I never knew, particularly with reference to his intercourse with medical men. When I think of the great loss we have sustained in him, I am at a loss to express myself."

Dr. J. S. King, of Natchez, Mississippi, forwarded a communication to the Association, stating that he was engaged in the compilation of the mortuary and similar statistics of the principal cities and towns of the country, and requesting that physicians would transmit to him such information upon those subjects as they could gather in their respective localities.

The Secretary read a communication from the Dubuque (Iowa) Medical Society, requesting the erasure of the name of Dr. Asa Horr.

On motion of Dr. Jewell, the request was granted.

Dr. Maybury, on behalf of the Committee on Publication, to whom Dr. Toner's resolutions were referred, reported the following as a substitute, which on motion was adopted:

"*Resolved*, That instead of yearly reprinting the list of members of the American Medical Association, the Committee on Publication be instructed to prepare and print with the Transactions, an alphabetical catalogue triennially, containing a complete list of the permanent members, with their names in full, designating their residences, the year of their admission, the offices they may have held in the Association, and in case of death or resignation, the date thereof."

THE REPORT OF COMMITTEE ON ETHICS.—SPECIALTIES IN MEDICINE.

Dr. Worthington Hooker offered the majority report, and in the main took the ground adverse to exclusive and partial specialties. In reference to exclusive specialism, he maintained that local affections were apt to be unduly estimated, to the exclusion, perhaps, of other parts of the system that were of more importance in the production of a particular disease; that diseases cured by a specialty are magnified in their importance; that specialists too frequently undervalue the treatment of diseases by the general practitioner; that there is a temptation to employ undue measures to obtain notoriety; and that he is further tempted to charge unduly large fees. The fields of medical practice were so large that the profession was always willing to seek advice from those who had devoted attention to particular subjects; but this should not encourage exclusive specialism. The specialty should be a natural outgrowth from the general practice, and should never be separated from it. If this were so, a full, frank, and free intercourse would be had between the specialists and general practitioners. The means availed of by the specialties to bring this fact before the public should be ordinary, and not extraordinary. There should be neither advertisements nor puffs in the newspapers. The professor in a school has been chosen for it by those who are competent to discuss his merits for that position; if he were by himself to place before the public the fact that he is specially skilled in the branch taught by him, he would come under this censure.

The report was well drawn up, and claimed the undivided attention of the members.

Dr. Kennedy, of New York, followed with a minority report, stating that he would read it in the absence of the writer. The writer believes that the whole tendency in every department of science is towards specialties. Science has been advanced during the last century by this course. Recently this tendency has shown itself in the persons of certain practitioners who resign all general practice, and confine themselves to the specific department they have chosen. No association can object to the advertisement in such cases, unless it is of a mountebank character. The report was signed by H. J. Bowditch.

The subject was then discussed by Drs. H. R. Storer, of Boston, Worthington Hooker, of New Haven, and others; but the hour of eleven having arrived, Dr. W. Marsden of Quebec was introduced, and proceeded to address the Convention on the subject of Cholera connected with Quarantine.

CHOLERA AND QUARANTINE.

Dr. Marsden, of Quebec, according to previous appointment, made some remarks upon Cholera. He commenced by stating his belief in the communicability of cholera, and the efficiency of a rigid quarantine. He had witnessed the first case that had occurred on the American Continent, and since that time had given much attention to the study of the disease. He was now convinced that every case of cholera could be traced to infection, and that the proper soil for the propagation of the disease was to be found in filth and the neglect of the ordinary sanitary precautions. He believed that all clothing from patients suffering from the disease should be destroyed, and thus be prevented from spreading the disease. He believed that isolation would prevent the appearance of the disease in any community, and related an instance in point which had made such a strong impression upon him that he was caused to think first of his plan of quarantine. It seems that a schoolmistress, in a locality where cholera threatened to make its appearance, consulted the doctor on the best course to pursue. He advised her, as soon as the disease should appear, to isolate the school from the rest of the town, by closing her gates and doors. This was done, and not a single case of cholera occurred within the walls. Dr. Marsden next gave the members a detailed account of his system of quarantine. As all of our readers may not be familiar with this plan, we will quote from his printed report which he gave us:

"1. The Cholera Quarantine Station shall be divided into three separate and distinct sections or departments.

"2. Each of these three sections or departments shall be isolated and separated from the others by a *cordon* or portion of neutral ground of not less than one hundred feet wide.

"*a.* One of these sections or departments shall be appropriated to the use of the sick, and shall be the Hospital Department.

"*b.* The next or central section or department shall be devoted to the use of passengers not having had cholera, but from infected vessels.

"*c.* And the third or healthy section or department shall be appropriated to the use of the healthy, who have been removed from the central department, after having performed quarantine there.

"*A.* In the first section or department there shall be three separate and distinct hospitals, besides a convalescent shed or hospital.

"*a.* The one for confirmed cases of cholera to be called the Cholera Hospital.

"*b.* Another for cases of choleraic diarrhœa, or other premonitory symptoms of cholera, to be called the Hospital for Cholerine.

"*c.* The third for all other diseases not cholera or cholerine, but coming from on board infected vessels, or vessels having had cases of cholera on board, to be called the General Hospital.

"*B.* The next or central section or department, shall be the primary quarantine department, and shall be appropriated to all persons who are not sick, but come from vessels having had cholera on board, and wherein every case on landing shall undergo inspection, washing, cleansing, and purifying both of persons and personal effects. There a quarantine of four days shall be performed, at the end of which period of time all such persons as continue in sound health shall be removed to the Final Quarantine Department, and any that may fall sick or be threatened with sickness during the four days of probation, shall, as soon as detected, be removed to the proper hospital, in the Hospital Department. There also the healthy inmates shall be removed daily to a new locality, thus occupying four different habitations during their sojourn.

"*C.* The third or healthy department, shall be the Final Department, and shall be for all cases coming from the Primary Quarantine Department, after having been cleansed, washed, and disinfected, and after having undergone the *four days'* quarantine; and here a further quarantine of *six days* shall be performed (excepting hereinafter provided for), making in all *ten days* of quarantine, when all persons continuing healthy shall be discharged from quarantine, and be removed from the station. If any premonitory symptoms or any other cases of sickness occur in this department during the six days of quarantine, they shall, as soon as discovered, be removed to the proper hospital, in the Hospital Department.

"No communication shall take place with the Hospital Department, except through the central or Primary Quarantine Department, for which purpose a passage, unfrequented by the persons undergoing quarantine, shall be set apart and reserved."

Dr. Lee moved the thanks of the Association to Dr. Marsden for his interesting and practical address, and the request of the body that he furnish it with a digest of his communication.

Dr. Bond amended, that those papers accompanying the lecture be commended to the city authorities, and the authorities having such matters in charge throughout the country, for their action.

Dr. Jewell thought the matter should be further investigated,

and moved its reference to the Section on Hygiene, to meet that afternoon.

The special business of the day was suspended to allow the Committee on Nominations to report.

THE OFFICERS FOR 1866–7.

President—H. F. Askew, Delaware.

Vice-Presidents—W. K. Bowling, Tennessee; J. C. Hughes, Iowa; H. J. Bowditch, Massachusetts; Thomas C. Brinsmade, New York.

Permanent Secretary—William B. Atkinson, Pennsylvania.

Treasurer—Casper Wistar, Pennsylvania.

Assistant Secretary—W. W. Dawson, Cincinnati.

Committee of Arrangements—Drs. John A. Murphy, James Graham, R. R. McIlvaine, J. P. Walker Unsicker, William T. Brown, William B. Done, Cincinnati.

Committee on Medical Education—Drs. T. D. Gross, D. F. Condie, John Bell, H. J. Bigelow, Charles A. Pope.

Committee on Prize Essays—Drs. Francis Donelson, Maryland; Simpson, U. S. A.; C. C. Cox, Warren, Van Bibber.

Committee on Publication—Continued.

Committee on Medical Literature—Drs. A. C. Post, James Anderson, H. D. Noyes, T. G. Thomas, Stephen Smith, all of New York.

Committee on American Medical Necrology—Dr. Wood, Delaware, substituted for Dr. Cooper; Jno. L. Callender, in place of Dr. Bowling; Jno. Blaine, in place of Wm. Pearson. The following were added: Drs. R. D. Arnold, Georgia; Lopez, Alabama; G. Dowell, Texas.

Committee on Climatology—H. Jones, in place of C. L. Allen, Vermont. The following were added to the committee: Drs. U. Harris, Georgia: G. Engelman, Missouri; R. Miller, Alabama; Fenner, Louisiana; G. Dowell, Texas.

All special committees are to be selected by the sections to which the subjects relate.

THE NEXT PLACE OF MEETING.

The place recommended for the next place of meeting of the convention is Cincinnati, Ohio, on the first Tuesday in May.

On motion of Dr. Ordway, of Boston, the report of the committee was adopted.

On motion, the Association went into a committee of the whole to discuss the resolution offered by Dr. Hibbard, having reference to extending the time for the course of study in the different medical colleges.

The whole matter was earnestly discussed by Drs. D. H.

Storer, Worthington Hooker, Wright, of Ohio, Davis, of Ill., and others, and resulted in the passage of the following resolution, offered by the last gentleman:

"*Resolved*, That the Association most earnestly request the medical colleges of the country to hold a convention for thoroughly revising the whole system of medical college instruction, for the purpose of establishing more uniformity of time, and a more systematic course of instruction for the whole."

The report of the Committee of the Whole was adopted, and a committee, consisting of Drs. Davis, W. Hooker, S. D. Gross, Wright and Shattuck, was appointed.

Dr. C. C. Cox read the report "On Rank in the Army," which was referred to the Committee on Publication.

Dr. Cox then offered the following, which was adopted:

"*Resolved*, That the President of this Association bring before the notice of the Military Committees of both Houses of Congress, at as early a period as possible, the present status of medical men in the military service of the U. S., and urge upon them that in the army medical bills, under consideration of Congress, the interests of the medical profession shall be so regarded that the medical staff in the service shall, numerically considered, receive the same rank and command as officers in other staffs of the army are justly entitled to."

The committee appointed to act on the foregoing resolution were Drs. D. H. Storer, C. C. Cox, Antisell, Johnson and Allen.

On motion of Dr. Cox, the following members, by invitation, were elected: W. D. Stewart, Va.; W. S. Forward, H. W. Stump, and J. L. Chaplain.

A committee was appointed on the subject of Fracture of the Spine, of which Dr. Brown-Sequard was made chairman.

On motion, Drs. Post, Antisell, and Atlee were added to complete the Committee on Medical Ethics.

SPECIALTIES AGAIN.

On motion, the report of the Committee on Ethics, which had been laid on the table, was called up.

On motion of Dr. Toner, the resolution attached to the minority report was omitted, and the reports were both adopted.

A motion to reconsider next prevailed, and the resolution was added to the minority report referred as before.

Dr. Homberger, of N. Y., made a request to offer a personal explanation, which, after considerable discussion, confusion and sensational speaking, was granted.

On motion of Dr. Sayre, it was agreed to hold an adjourned meeting at 5 P. M., to discuss the subject of cholera.

A communication from Dr. McGee, "On Periosteal Flap Amputations," and one from Dr. Elsberg, N. Y., "On Diagnosis of Diseases of the Larynx," received, and both referred to the Section on Surgery.

The meeting then adjourned until 5 P. M.

THIRD DAY—AFTERNOON SESSION.

At 5 P. M., according to previous adjournment, the Association met, and after being called to order, resolved itself into a Committee of the Whole, choosing Dr. Davis as Chairman.

The subject for discussion, as previously announced, was

CHOLERA.

Dr. Sayre, of New York, opened the discussion. He considered that the disease could not reach here unless it was brought here; that it could not be generated here. It multiplies its ravages when filth and uncleanliness abound, and is generated in a sandy, level country, beneath a temperature of 128 degrees. There the decomposing animal and vegetable substances originate this peculiar poison. He believed that it accompanied the individual, and that it did not travel by atmospheric power. He thought that the Government was responsible for permitting the disease to get into the land. A rigid, proper quarantine, universally adopted by the General Government in combination with the British Provinces, would, in his opinion, prevent its admission to our continent. We had no quarantine, rightly considered. The disease in 1849 did not originate in Baxter street, New York, but took its origin from an infected person who escaped from quarantine. The cabin passengers escape because the disease has not traveled 200 feet nor 10 feet from the steerage to the cabin. He remarked that he did not believe in mysteries, but wished to understand facts in his own way. If the valuable information that he had obtained from Dr. Marsden were put into practical application by the General Government, he believed that millions of money and millions of lives would be saved.

Dr. Linton protested against the doctrines advanced that morning and evening. We had medical journals through which we could discuss this subject a long time before the cholera would get here, and a long time before quarantine could prevent its getting here. "Who can believe that cholera could have been prevented from coming here in 1849? I do not believe it is any more contagious than intermittent fever. I am certain that nine-tenths of the physicians of this country are convinced of this fact. I say to the citizens of New York, Baltimore and Canada, you may have no fears of the cholera. If it comes, it

will arise in your midst. Cholera is not a disease (!!)" He did not believe that there was any truth in the doctrine of contagion. "Cholera breaks out in ships after they are six weeks at sea. I saw a case in St. Louis two months ago. Where did the Asiatics get it from?"

Dr. Bell, of Brooklyn, thought the facts of Dr. Marsden inconsistent with the results of observation. Dr. M. had traced it first from a brig in Liverpool. He did not say that cholera existed in Liverpool at the time. Dr. B. believed cholera can be traced to various places other than Asia. "If cholera is contagious, it takes various roundabout ways of making short journeys. It took an exceedingly roundabout way to the principal cities of Europe. Of the present epidemic, it is said the Mecca pilgrims first had cholera. The evidences I have collected are against strict quarantine. The passengers of the Atlanta were detained at quarantine; no cases occurred among the well passengers after they left the ship. Of all the things likely to originate cholera, none are equal to a crowded, filthy ship. None of the passengers or things of the Atlanta were taken to Ward's Hospital. I would protest against the endorsement of any restrictions against persons advised by Dr. Marsden. The detention of well persons can never protect us against any disease. Our protection is in our clean houses, for cholera often leaps over healthy residences. The action of the health officers at the New York quarantine has been fatal to well persons, and has tended to ward off investigation of the places where cholera originated."

Dr. John Atlee, of Pa., said that it was difficult to know the facts in large commercial cities. "There are a thousand avenues to such cities as New York and Boston; but in the inland districts we are more likely to reach a better observation of facts. In 1832 I was in the midst of cholera at Lancaster County Hospital, Pennsylvania. I believed that cholera and yellow fever were diseases independent of any idiomiasmatic conditions of the atmosphere. In July or August, 1854, a certain peculiar condition of the air existed. The water of the Susquehanna was very low, and the water of the basin very filthy, yet there was no cholera. There were, however, some cases of bilious and intermittent fever. One day a car of emigrants came from Philadelphia to Columbia; two or three of the passengers were ill, and were put upon the platform. Four gentlemen seeing them there at the point of death, conveyed them to a shed. In the next twenty-four or forty-eight hours not one of them was living. In two or three days the cholera prevailed in Columbia. In the Lancaster County Hospital the

winds were from the south. We had no cholera. A few days after the cholera broke out in Columbia, an emigrant reached there afflicted with cholerine. Shortly after two or three cases of cholera existed. The same train conveyed the cholera to Pittsburgh. Passengers came to the vicinity of Lancaster at a place called Paradise. Their effects were sent to Lancaster, in a high and healthy location. The relative who washed the clothes died of cholera. It is a contagious disease. Why did it not spread? Why did not small-pox spread? There is an atmospheric constitution favorable to the development of disease. The result of observations in Sweden was that it had been conveyed there by the clothes of sailors. I think Dr. Marsden is right and Dr. Sayre is right, and our friends in Philadelphia must come to the same conclusion if they wish to preserve that metropolis from the ravages of the cholera."

Dr. Sayre said the quarantine law of New York, as now enforced, is a disgrace to civilization. Dr. Carnochan, himself, and others, saw the cases on Ward's Island, and they all came to the conclusion that they were not cases of cholera.

Dr. Bell remarked that Dr. Geo. Ford insisted that the Ward's Island cases he treated were those of cholera.

Dr. Sayre then quoted from Dr. Ford's official statement in the annual report of the Commissioners of Emigration, in which he (Dr. F.) stated on page 52, that those "twenty-seven deaths were caused by *diarrhœa* and dysentery." This was the *official* statement of Dr. Ford.

Dr. Marsden said that cholera followed human travel. He adduced other facts to demonstrate its contagious character. It is infectious in person and personal effects. He urged the necessity of guarding against any communication between the infected and the well. Equanimity, cleanliness and temperance were three great adjuncts to the quarantine.

Dr. Jewell, of Pa., said: "I have been charged with disseminating cholera. I have done all I could to prevent its entrance to Philadelphia. Cleanliness and ventilation will do much to that end. We have been engaged at that during the past winter. I do not believe in quarantining healthy people. That would be disseminating the disease by giving it to the well persons on vessels where cholera existed. We had the epidemic in the summer of 1849 in Philadelphia. It began in four different portions of the city. The first case was at Richmond, the second at Eighth and Spring Garden streets, the third in Moyamensing. These were all in the centre of the city, except at Richmond, and remote from the Delaware. The filth produced the disease in Richmond and along the Delaware. In 1832 the

first case was on the Schuylkill, in a canal boat that came down from the upland country. There had been no foreign arrival in Philadelphia. It came from a poisoned atmosphere. In 1849 no flies were living. In Wheeling the birds died. The doctrine of contagion is dangerous, and will deprive the sick of assistance. Small-pox does spread, and if we had not vaccination it would spread more than it does. Contagion and infection are distinct. Contagion is the principle communicating the disease from one person to another. It is not so with cholera. There were no cases of contagion in 1832 or 1840. No vessels arrived with cholera on board. They may have arrived after the disease appeared. I am sorry the resolution was introduced. Next year we will be better able to test the value of Dr. Marsden's information. The poison of cholera will increase rapidly by contact with filth. It is only by purification of the city that cholera can be prevented."

Dr. Lee followed with some brief remarks sustaining the views of Dr. Marsden, and maintaining that it was contagious under certain circumstances. Certain neighborhoods of a very filthy character were not attacked until emigrants came there.

The Committee of the Whole rose, and the Association adjourned without further action.

THIRD EVENING.—ENTERTAINMENT BY THE CORPORATE AUTHORITIES.

The corporate authorities of the city gave an entertainment to the members this evening, at which were present all the notabilities of the city, including the principal officers and members of the City Councils. The entertainment was prepared in the most generous and magnificent manner, and reflected infinite credit on the donors. Between four and five hundred gentlemen were present. The supper was called at nine o'clock. A band of music, stationed in the gallery, initiated the occasion with an appropriate air, and at intervals in the course of the evening performed all the national hymns and songs. After discussing the substantials of the bill of fare, the customary toasts were given by Dr. J. Faris Moore, toastmaster, and suitably and eloquently responded to by gentlemen of the municipal government of the city, and the officers and members of the Association, the attention and laudations of the great assemblage being specially directed to the eloquent response made by Dr. N. Pinckney to the toast, "The navy of the United States and its medical corps." Other toasts were equally well received, and the interest of the supper was sustained until a late hour in the evening.

FOURTH DAY.—MAY 4.

The Association was called to order at the appointed time, 9 A. M., by the President. After which, the Minutes of the previous sessions were read by the Permanent Secretary, Dr. W. B. Atkinson, of Philadelphia.

Dr. Cox was, on motion, accredited as a delegate to the Foreign Societies.

Dr. Garrish, of N. Y., offered the following, which was adopted:

Resolved, That all the members of this Association urge upon the legislatures of the various States the great importance of making it compulsory that all marriages, births, and deaths, be registered.

MEDICAL RANK IN THE NAVY.

The Naval Committee appointed at the last meeting of the National Medical Association having failed to report upon the subject of naval medical rank, it was moved by Dr. Cox that Surgeons Wm. M. Wood, Ninian Pinckney, and David Harlan, U. S. N., be appointed a committee to report upon this subject at the next meeting of the Association. Adopted.

Various amendments were next brought up and laid upon the table.

The reports of the various sections were then in turn called for, and adopted. They will be found in another place under appropriate headings.

Dr. Holton, of Vt., offered the following, which was unanimously adopted:

"*Whereas*, The author of the Essay, Dr. H. R. Storer, to whom the prize of $100 from this Association was awarded in 1865, refused to receive the amount thus awarded, consequently increasing the resources of the Association to that amount; therefore,

"*Resolved*, That the thanks of this Association are hereby tendered to Dr. H. R. Storer for this display of liberality."

The Committee on Ethics appointed to report on the resolutions of the Montgomery Medical Society, recommended a reference of the whole matter to the Medical Society of that State.

Dr. Holton offered the following, which was lost:

"*Resolved*, That at the future meetings of this Association there shall be held two general sessions, one in the morning and one in the evening, unless otherwise ordered."

Dr. King, of Pittsburgh, offered the following:

"*Resolved*, That this Association, approving of the system of quarantine proposed by Dr. Marsden, of Canada, as the

most effectual means for preventing the introduction of cholera into this country, do earnestly recommend the propriety of its adoption at all our ports of entry, to the favorable consideration of Congress."

The House then on motion, after a little discussion, went into a Committee of the Whole, Dr. Davis being Chairman.

Dr. Bell, of Brooklyn, was granted the privilege of making a personal explanation of his statements in reference to cases of cholera on Ward's Island, and although he persisted in his original assertion, the Chair declared that the whole matter was, he presumed, well understood by the Association, there being only a different scientific opinion entertained by two different parties.

The resolution of Dr. King was then taken up, and after much discussion,

Dr. J. H. Burge, of Brooklyn, offered the following, which, after eliciting many remarks from Drs. Horton, Storer, Post, Lee, Pinckney, (U. S. N.,) Marsden and J. Anderson, (N. Y.,) was, on motion, laid on the table. The following is the resolution:

"*Resolved*, That this Association appoint a Committee of Ten to memorialize Congress to the following effect: That whereas, in the opinion of many eminent physicians, the system of quarantine recommended by Dr. Marsden, of Canada, for protecting our country from Asiatic cholera, would prove effective; therefore, *Resolved*, that we earnestly petition the Government of the United States to make an immediate and ample appropriation, and take all other necessary measures to test the utility of said system."

The Committee of the Whole rose and reported accordingly.

The President resumed his seat.

Dr. Cox moved that Dr. J. C. Tucker, of Nevada, be a member by invitation. Adopted.

Dr. Stokes offered the following as the report of the Section on Psychology, which was accepted and referred:

"The Section on Psychology unite in requesting that a committee be appointed to make a report at the next annual meeting on Insanity, and ask that Drs. J. Ray, of Providence, R. I.; Clement C. Walker, Massachusetts; A. B. Cabaniss, Mississippi; W. S. Chiply, Kentucky; and John Fonerdin, Maryland, be appointed said Committee.

CLEMENT C. WALKER, *Chairman*.
WM. H. STOKES, *Secretary*.

The report of the Committee of the Whole in reference to the question of Quarantine was then adopted by the Association.

DEATH OF PROF. D. L. MAGUGIN, OF IOWA.

Dr. Taylor, of Iowa, presented the following:

"*Whereas*, After a long and laborious life devoted to the practice of medical art and promotion of the interests of medical science, Dr. D. L. Magugin, of Iowa, has been called to the final rest of all good men:

"*Resolved*, That the Association, while deeply regretting the loss they have sustained, will ever keep alive the the memory of his many virtues and professional worth, and commend the example of his untiring devotion to our common cause.

"*Resolved*, That a copy of these resolutions be furnished his family with sincere condolence."

Dr. Garrish, of New York:

"*Resolved*, That the members of this Association tender their heartfelt thanks to our professional brethren of Baltimore for the liberal, cordial and satisfactory manner in which they have entertained us."

Dr. H. R. Storer offered his report as Delegate to the last meeting of Superintendents of American Institutions for the Insane, and presented the following for adoption:

"*Resolved*, That the Association recommend to the several medical and law schools of the country, the establishment of an independent chair of Medical Jurisprudence, to be filled if possible by teachers who have studied both law and medicine; attendance upon one full course of lectures from whom shall be deemed necessary before the medical degree is conferred.

"*Resolved*, That while this Association regrets that the Association of Superintendents of American Asylums for the Insane has not yet thought fit to unite itself more closely with the representative body of American physicians, it still is of opinion that such union is for their mutual and reciprocal advantage, and that it ought to be effected without further delay."

On motion, the above was adopted.

After the transaction of business of minor importance, the Association adjourned *sine die*.

CHICAGO MEDICAL SOCIETY.

Drs. R. M. Lackey, F. O. Earle and J. S. Sherman were duly elected members of the Society.

CEREBRO-SPINAL MENINGITIS.

Dr. Paoli read the history of an interesting case of this disease, successfully treated with bromide of potassium. The paper is given in full on another page of the Journal.

Drs. Bluthardt, Fitch, Clarke and Holmes, reported verbally cases in which the peculiar pain in the back of the head and neck, with more or less tonic contractions of the posterior cervical muscles were constant symptoms. In all these cases there were at some stage of the disease regular and marked exacerbations of the symptoms as if influenced by malaria. Quinine seemed to afford but temporary benefit.

FATTY DEGENERATION OF KIDNEYS, ETC.

Dr. Bevan exhibited portions of the lungs, liver and kidneys of a patient who, after an illness of six weeks, had been brought to the Cook County Hospital three days before death. No satisfactory history of the case could be obtained. On entering the hospital, there were general anasarca, delirium and aphonia. The urine was found to contain large quantities of albumen. There was great dullness over the left lung.

The kidneys presented the peculiar mottled appearance, observed in several other specimens previously exhibited to the society, indicative of fatty degeneration.

The liver was atrophied and presented a marked hob-nail appearance.

The whole of the left lung was hepatized.

URINARY CALCULUS.

Dr. Bogue exhibited a urinary calculus which he had removed from a child, three years of age, at the Cook County Hospital. Symptoms of stone had existed about a year. The calculus was of a very peculiar shape, long and pointed at each end, resembling almost perfectly a small almond. Its weight was 31 grains. A section through its short diameter showed marked concentric layers. It was principally composed of uric acid.

It was removed through the urethra, which had been previously dilated by means of dried sponge tent, and still further enlarged by small lateral incisions through the mucous membrane.

OSTEO-MYELITIS.

Dr. Bogue also exhibited specimens of osteo-myelitis of the tibia and fibula following amputation, which had been performed in a case of frost bite. The patient, at the time of the exposure

to cold, was in poor health in consequence of a severe gun-shot wound of the same limb. He did well for a few days, when he was seized with severe chills and fever. Symptoms of pyæmia soon appeared, followed by death in twelve days. An examination showed a large abscess in the left lung, which was extensively hepatized. The kidneys presented evident traces of fatty degeneration.

ANEURISM OF THE AORTA.

Dr. Heydock exhibited a specimen of aneurism of the aorta, with the following most interesting history: Mr. B., captain of a lake vessel, æt. 35, had suffered for two years from aphonia and cough, with a degree of dyspnœa, which was partially relieved by bending forward. He had been examined by several careful and skillful practitioners. Patient came under the care of Dr. H. about four months ago. Pulse 74. There was constant pain in left arm and shoulder. The lungs were apparently healthy, except at the summit of the right side of the chest, where there were slight indications of tubercles.

No abnormal sounds of the heart could be detected by several experienced auscultators. One of the most marked and painful symptoms was extreme vigilance, which was scarcely affected by enormous doses of morphine.

At the autopsy which was recently made, the right lung was found perfectly healthy except at its summit, where there were small deposits of tuberculous matter.

The left lung was carnified and adherent in places to walls of the chest. Spleen healthy. There were calcareous deposits in the trachea. A large aneurism was found at the upper portion of the descending aorta, implicating the par vagum nerve. The recurrent laryngeal nerve seemed to have been destroyed by pressure from the aneurism.

HARD CATARACT.

Dr. Holmes exhibited three specimens of hard cataract which he had recently extracted, and which were specially interesting as showing the capsule intact. In each case the extraction was preceded several weeks by a removal of a portion of the iris downwards. In extracting the two small specimens, after the

section of the cornea had been completed, the opaque lens, covered with its capsule, at once escaped before the instrument for incising the capsule could be introduced. The pupil was thus left perfectly clear and free from fragments of the capsule and cortical substance. The recovery in these two cases was complete and most fortunate. By holding the small bottles to the light, the great delicacy and transparency of the capsule could be seen surrounding the opaque substance. In the case of the patient from whom was taken the specimen which seems much shriveled, the diagnosis could be readily made before the operation of a hard, yellowish, central cataract, floating in a cortical substance reduced to a milk-like fluid, since motions of the head caused the central hard nucleus to sink from one side to the other. The alcohol in which the specimen was preserved caused the fluid to pass through the capsule, leaving the latter in transparent folds.

In reference to the third specimen, Dr. Holmes stated that the case afforded a remarkable example of the manner in which an eye may suffer violence and yet recover sight. The patient was a lady, 66 years of age, and a cripple. The extraction was delayed six weeks after the iridectomy, in consequence of repeated attacks of diarrhœa and intermittent fever. After the recovery from the iridectomy, it was evident, the cataract was unusually large. Dr. H. stated, however, that he believed there was sufficient soft cortical substance to enable the cataract to pass through an opening of ordinary size in the cornea.

Although a large quantity of chloroform was administered, and the patient was so deeply under its influence as not to show signs of consciousness when the conjunctiva was seized with the forceps, and when the knife entered the cornea, yet, before the section was completed, the patient suddenly moved her head. This necessitated a second seizure of the conjunctiva with the forceps. With the most valuable aid rendered by his friend, Dr. Powell, during the operation, the section of the cornea, however, was completed without accident. After the rupture of the capsule with the usual instrument, it was found that the diagnosis had been faulty in regard to the condition of the cortical substance, the whole of which was very hard and quite

firmly attached to the capsule. As the cataract had already entered the opening in the cornea, it was thought best to try gentle pressure on the globe rather than enlarge the incision in the cornea. After considerable (yet not undue) pressure, the whole lens escaped, the nucleus and hard cortical substance protruding from the capsule, like the pulp of a grape partially escaped from its skin. Not a trace of vitreous humor was lost.

A soft compress, soaked in a solution of atropine, was placed over the eye and confined by a bandage passed quite firmly around the head. At a visit late in the evening after the operation, the patient was very comfortable. Quite early in the night, however, she was attacked with severe diarrhœa. In spite of the attendants, she insisted on constantly getting out of bed.

Notwithstanding these unfortunate accidents, the cornea healed rapidly. Vision was excellent.

A comparison of the different specimens will show the unusual size of the cataract.

Dr. H. stated that, what with him occurred as an accident in removing the lens and capsule together, has been recommended by a recent writer as a measure advisable wherever it can be accomplished.

REGULAR DISCUSSION OF THE EVENING.

LOCOMOTOR ATAXY.

Dr. Heydock, in opening the discussion, stated that he would confine his remarks principally to the history of a single case now under his observation.

A gentleman, aged 61 years, having enjoyed good health, began, two years since, to experience symptoms of locomotor ataxy, which commenced and increased in severity almost imperceptibly. The effects of the disease appear to be confined to the muscles of the legs, which seemed to lose their power of acting co-ordinately. The surface possesses its normal sensitiveness; the muscles their full strength, judging from the manner in which he can use them while lying down. In walking, the motions of the limbs are similar to those of an intoxicated person. He is obliged to fix his eyes upon the place where he wishes to plant his feet, in order to walk with any

degree of security. This even requires, apparently, great effort of will. On closing the eyes, or in walking in the dark, he loses confidence and falls easily. The patient was able to attend his ordinary business.

Dr. H. stated that, according to the best authorities, the disease was accompanied with different symptoms in different cases. Sometimes, though not often, the muscles of the arms were affected; there was pain and partial loss of feeling in the limbs; occasionally, the symptoms were confined to one arm and one leg; usually, however, to both legs. In some cases, the special senses, particularly the sight and hearing, were impaired. The limbs do not generally become atrophied, as in ordinary paralysis.

The disease seems to be a degeneration of the posterior columns of the spinal cord; the nerve fibres appear to be so changed that the power of communication between the brain and the muscles of the pelvis and the lower limbs exists in a very abnormal condition. This is owing to atrophy of the nerve fibres which compose the spinal cord.

Dr. Ross gave the history of a case of this disease, which had fallen under his observation. The paper will be given in full in our next issue.

Dr. Bluthardt read a synopsis of the opinions of distinguished authorities in reference to this disease.

Remarks were made upon the general subject by Drs. Paoli, Hildreth, Lyman, Peterson and Durham.

SELECTED ARTICLES.

MISCELLANEOUS.

Nitro-Glycerine.—The terribly explosive properties of this dangerous substance have been illustrated by a painful coincidence of events in San Francisco and Aspinwall, by which many lives and much property have been destroyed. It is strange that similar accidents have not previously occurred in the mining districts of the Pacific coast. Nitro-glycerine, or glonoine, as it is sometimes called in medicine, is prepared by allowing glycerine to fall drop by drop into a mixture of equal parts of

nitric acid and oil of vitriol, care being taken to prevent the temperature from rising too high. A heavy, oily-looking liquid collects at the bottom of the vessel, which has a sweetish aromatic taste, and is a dangerous poison. A single drop placed upon the tongue produces a severe pain in the head for hours. Its formula is $C_6 H_6 (NO_4)_2 O_6$, or for two equivalents of hydrogen in the glycerine two of peroxide of nitrogen are substituted. A drop placed upon paper and struck on an anvil produces a powerful concussion. Under circumstances little understood the friction of its particles among themselves even when frozen, or contact with some foreign substance, is sufficient to produce such effects as those below given. Its manufacture or storage in some parts of Europe is forbidden, and the Mayor of New York has acted wisely in causing the removal of all found in that city.

The following particulars of the disaster are from the *Panama Star and Herald:*

"Nearly, if not all the local freight of the European had been delivered, when about 7 o'clock in the morning of the 3d, a terrific explosion occurred on board, which tore away the upper parts of the ship and blew several large plates off the side. The wharf at which the ship was unloading, and which was some four hundred feet long, was literally torn to pieces; the superstructure was completely demolished to within a hundred feet of the freight house, and hardly a plank remained in the entire length of the structure that was not wrenched from its fastenings.

"Immediately in front of where the vessel lay, a gap was cut through the wharf, piles, planking, etc., all disappearing. The ship and wharf both caught fire, and the latter was saved from entire destruction only by the exertions of several citizens, who got the fire engine to work, and after a few hours extinguished the flames, regardless of the risk they incurred from another explosion of the burning ship. The Panama Railroad Company's splendid freight house is left a pile of ruins. The force of air caused by the concussion seems to have raised the roof—which was constructed of iron and slate—upwards a few feet, its own weight bringing it down with immense force into the building, and carrying with it both the end walls, leaving the house, excepting the side walls, which appear but little if at all injured, a mass of ruins. * * * * *

"The most awful part of the catastrophe was the dreadful loss of life and suffering attending it. Of the number killed and missing it is impossible to give a correct estimate; but from present data the number may be safely put down at fifty, and

is, we fear, more likely to prove over this number than under it. Of the forty-one men comprising the crew of the European, nine have been killed and twelve are missing.

"The scene in Aspinwall after the first explosion cannot be described—it was harrowing in the extreme. Whilst the ruins gave an air of desolation to the place, the mangled and lacerated bodies or pieces of bodies, to be met with in every direction for a great distance around the ruin of the disaster, were heart-rending, and the suffering of the poor mortals crushed and bruised, in whom life was not extinct, was really dreadful.

"The amount of damage caused by the explosion is roughly estimated at $1,000,000, which is about the lowest figure at which it can be placed."—*Boston Med. and Surg. Journal.*

Endermic Poisoning by Belladonna.—The application of belladonna to the breast for the relief of painful distention of the organs, especially after sudden weaning, is often resorted to, and with advantage. Where there is an abrasion of the skin, however, this practice, it should be known, is not devoid of danger. A case of poisoning, under such circumstances, is recorded in a recent number of the *Lancet*, November 11, 1865. —*Journal of Medicine.*

Cancer is nearly three times more fatal among women than among men. Of eight thousand seven hundred deaths from cancer in women, about three thousand, or more than one-third of all cases of cancer in the females, were instances of cancer of the uterus.—*Simpson.*

EDITORIAL.

We give up a large proportion of our space to the official record of the proceedings of the American Medical Association at Baltimore. This has necessitated the postponement of considerable matter which had been prepared for the present number of the *Journal*, but we feel confident that our readers all take sufficient interest in the transactions of their highest representative body to desire the earliest and fullest report that can be issued.

The meetings of the Asssociation were marked by no unusual features. There was the ordinary amount of speech making,

and its quality did not differ in any perceptible degree from the oratory of previous sessions. The ultra-specialists performed their customary antics which injured no one but the performers, and were chiefly annoying through the loss of time which they caused the Association. The discussion on cholera showed the necessity for additional observation and study of the disease. A large number of interesting papers were submitted to the sections, and will serve to enrich the forthcoming volume of transactions. The festivities of the season were fully up to the standard of Esculapian propriety. Altogether, the meeting was a success.

One, however, cannot refrain from expressing a hope that the time will soon arrive when these annual sessions shall be so conducted that their influence upon the profession may be something more impressive than is now the fact. Longer sessions; more committee work; and less random debate, would add incalcuably to the weight and dignity of the proceedings of the Association. Instead of three days of social enjoyment interlarded with medical debate, the annual meeting of the association should be a true *Congress*, in which the vexed questions of the day should be deliberately and adequately discussed, that some positive result may be arrived at as the expression of the voice of the profession, respecting all matters which are brought to the notice of the body. Such a course might detract from the brilliance and eclat of the gathering; but if this be an objection, why not add to the present system of association a higher body of deliberation, bearing to the existing form the relation which subsists between the Senate of the United States and the popular branch of the government?

WANTED—The February and August Nos. of this Journal for 1864. Address Eds. Journal.

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THE

CHICAGO MEDICAL JOURNAL.

VOL. XXIII. JULY, 1866. No. 7

ORIGINAL CONTRIBUTIONS.

On Progressive Locomotor Ataxy. By BENJAMIN DURHAM, Jr., M. D., Chicago, Ill.

The study of diseases of the nervous system is receiving much attention, especially since the investigations of Brown-Sequard, and the lines of discrimination in diagnosis are drawn more strictly than heretofore. By this means those most skilled in this specialty have separated the cases of progressive locomotor ataxy from the old class of tabes dorsalis; and though physicians in general practice may rarely meet with instances of this disease, yet its study may help us to diagnose more accurately the usual cases of spinal paralysis. [Authors consulted: Aitken, Brown-Sequard and Flint; Duchenne, in *Year Books of New Sydenham Soc.;* Stille and Topinard, in *Am. Jour. of Med. Sci.;* Althaus, Radcliffe and Ramskill, in *London Lancet.*]

In 1858, M. Duchenne (de Boulogne) described a form of paralysis where the patient retained the appearance of health and muscular development without being able to perform combined voluntary movements. In his case (a painter, aged 28) there was double but incomplete paralysis of the sixth pair of nerves, characteristic boring and flying pains, integrity of the

muscular force, but complete loss of co-ordination of the lower limbs, with diminished sensibility. This patient died of another disease, but at the autopsy no appreciable lesion in the brain or spinal cord was detected. During the following year Duchenne published his observations, and described "ataxie locomotrice progressive as a disease whose chief characters are the increasing loss of the co-ordinating power of the movements, and retention of muscular power in strong contrast to the apparent paralysis." He believed the function of co-ordination is primarily affected, and located the seat of the disorder in the cerebellum, corpora quadrigemina and the intervening commissure. Since the time of these observations the subject has been fully investigated by English and German physicians, who find that the present disease has formerly been included under the head of spinal paralysis and generally confounded with tabes dorsalis.

The pathological changes in the nervous centres were only determined by the use of the microscope. The anatomical lesions occur first in the periphery of the cerebral nerves, then in the posterior columns of the spinal cord and the posterior roots of the spinal nerves, and sometimes in the optic nerves, motores oculi and tubercula quadrigemina. With these appearances may be associated congestion or chronic inflammation of the spinal cord and its meninges, and degeneration of the central gray matter, but primarily this disease consists in a wasting away of the medullary matter in the nervous tubules and granulation with hypertrophy of the intermediate elements. In place of the nerve fibres there are delicate empty tubes surrounded by cells containing several nuclei. In all cases there exists a gutter-like depression in the posterior portion of the cord, quite marked in the dorsal and lumbar regions. Bourdon gives the anatomical characters as follows: "The posterior columns of the spinal cord, and sometimes the cineritious substance also, had undergone degeneration, were of a grayish-yellow color and semi-transparent; the posterior roots of the spinal nerves were also atrophied, sometimes the optic nerve, and in one case the tubercula quadrigemina had become altered. Anatomically, the disease is a chronic inflammatory process,

resulting in the atrophy of the nerve elements, and which, being confined to the posterior column of the spinal cord, begins in its lumbar region, and gradually extends thence both upwards and downwards. With this alteration is associated a spinal meningitis affecting the posterior face of the cord, and proportioned in its degree to that of the alteration of the cord itself." These pathological appearances agree with the symptoms of the disease and the discovery of Brown-Sequard that "the posterior columns are the principal channels for the excitations which produce reflex movements."

"In cases of alterations limited to the posterior columns, but occupying all their length and thickness, or only the whole of the lumbar swelling, there is an impossibility of standing or walking, depending upon the loss of the reflex actions of the limbs; but, in bed, the patients in such cases can move their lower limbs pretty freely." In limited affections of these columns there is hyperæsthesia in the parts of the body behind the injury, and the reflex actions and voluntary movements of the limbs may persist, but in alterations of a great part of their length the hyperæsthesia is much less. So in the earlier stages of progressive locomotor ataxy we have fugitive pains, which are referred to a rheumatic or neuralgic origin, and slight affection of some of the cerebral nerves as the sixth or third pair, and in certain cases impairment of vision. After some time the patient notices a difficulty in walking, his motions become uncertain, often he cannot walk without watching the position of his feet, and he acquires a peculiar, awkward, staggering gait, so that his legs are thrown widely apart, while the body is swayed from side to side, and though when lying down he possesses full muscular power, yet his uncertain movements make walking very tiresome.

Trousseau relates one instance where a physician requested him to see an odd case of paralysis in a man eighty years old. Though unable to walk, the patient overthrew his unsuspecting attendant, who tried to hold his flexed leg in such a way that he could not extend it. The power remains without the control of muscular action. The character of the disease appears when any attempt is made to execute a combined movement, especially

when the actions are not guided by the sight. In the progress of the affection the upper extremities become affected, which is soonest manifested by inability to control the fingers in buttoning the clothing, particularly at the neck or back where vision fails to assist in directing the movements. Later in the disease there is diminution of tactile sensibility, the power of speech becomes impaired, the articulation is indistinct and stammering, and sometimes the use of the eyes is lost. In the female the catamenia and the power of conception continue, but in the male there seems at first to be an increase of sexual desire, which, with the virile power, is lost in the progress of the degeneration; sometimes there is incontinence of urine, but generally the urinary and digestive organs present no special symptoms. In the later stages the disease may be complicated with symptoms of motor paralysis and chronic myelitis, which sometimes coexist with this affection, and the patient may lapse into paralysis or insanity.

It was formerly supposed that ataxy was caused by onanism or excessive sexual indulgence, but there is no special origin for this nervous disorder. The primary cause of progressive locomotor ataxy operates upon the whole nervous system, with a preference for the spinal cord, and consists in an alteration of the reflex power, which is sooner manifested in the lower than the upper limbs, since this reflex co-ordinating power is more developed in the lumbar portion of the cord. There may be a hereditary tendency to this disease, but sex exerts no influence; exposure to cold and dampness, bodily and mental fatigue, and a rheumatic condition, have been mentioned as causes.

In regard to the diagnosis, the physician is liable to confound this special form with chronic myelitis and general paralysis. Many cases have been considered as instances of incurable chorea, which they resemble in many of their symptoms. But though the type of the spinal disease may not be distinguished by the premonitory signs, yet it will appear plainly when in the progress of the case there is a defect of co-ordinating power without wasting or loss of action of the muscles.

In regard to the prognosis, it is always very unfavorable;

still, the affection is a lingering one, and the patient usually sinks from some intercurrent disease: a hope may be held out that with proper care the progress of the degeneration may be stayed, but great caution is necessary in regard to promising any return to health.

In respect to the treatment, the different remedies used in other nervous disorders have been employed without eliciting much confidence. The indications of treatment are, 1st, to combat any complication which aggravates the disease; 2dly, to enrich the blood, and thus relieve the constitutional affection; and 3dly, to assist the nutrition of the spinal cord. Hygienic remedies must be the physician's principal weapons. Attention has been called to the judicious employment of electricity and the use of sulphur baths, which in some cases have been productive of a little improvement, but hydropathy has been faithfully used without any benefit. The different remedies which have gained a transient reputation in the treatment of ataxy seem to have been used in cases attended with myelitis, meningitis, or a rheumatic diathesis. We can readily understand the benefit which in such instances might attend the use of belladonna, ergot and bromide of potassium in relieving the congestion of the spinal cord, and though the action of nitrate of silver is not so clearly defined, yet it seems to act much in the same way, and certainly proves useful in cases of a rheumatic character, where, too, iodide of potassium has been beneficial. But though the pathological changes are local, we must not forget that these are the manifestations of constitutional perversions of nutrition, and every means is necessary to enrich the blood; therefore, the patient should live on the most nutritious food and be much in the open air, while medicinally we may resort to the hypophosphite of soda and cod liver oil. Lastly, in attempting to assist the nutrition of the spinal cord, we can increase the flow of blood to this organ by a very guarded use of strychnine or opium, using the precaution not to produce an injurious congestion of the cord. It seems as yet to be an open question whether nitrate of silver and iodide of potassium have any power to check the degenerative changes which impair the nutrition of this nervous centre. In cases unmixed with inflam-

mation some good may be experienced by position, causing the patient when in bed to lie on his back with the lower extremities raised higher than the spine, and in suitable cases we might resort to the alternation of heat and cold, by placing ice on the back for ten minutes and following with a hot poultice for an hour. The fatal termination of the cases noticed has usually been from some disorder of the respiratory system or from typhoid fever, and death rarely occurs without the supervention of some other disease.

A Case of Progressive Locomotor Ataxy. By J. P. Ross, M. D., Attending Physician to the Cook County Hospital.

(Reported to the Chicago Medical Society.)

John W——, aged 37, sailor, a native of England, was admitted into the City Hospital, February 16, 1860. He stated that he had enjoyed good health until three years previously. In the spring of 1857 he felt a prickling sensation, followed by a numbness in the toes of the left foot, which gradually extended over the foot and leg. This was attended by a diminution of voluntary power in the parts. His right leg became similarly affected.

From this date his power of walking became impaired. His general health was good, and he continued his work until May, 1858. At this time he sailed to the West Indies with a hope of obtaining benefit from a change of climate, but returned in no way improved. During the following winter, wandering pains were felt in the left leg, and soon the knee became painful, hot and swollen. Blisters were applied, and the mur. tinct. ferr. given internally.

In three weeks the left knee got well, and the right one became affected in the same way, the difficulty disappearing after the same length of time. At this date sensibility was very imperfect, and the power of using the lower extremities was almost entirely gone. A pain was felt between the scapulæ; counter-irritation was now applied to the spine, and strychnia given by the attending physician until involuntary startings

of the legs occurred, but no improvement in the power of motion. Since this time there has been but slight improvement.

On admission, his general appearance was healthy. Muscular development of lower limbs good. Was able to draw up his legs in the bed, or to move them in any direction; but in attempting to stand, he experienced great difficulty in steadying his legs sufficiently to bear his weight upon them; succeeded, however, after great effort, by leaning much of his weight on the back of a chair. On attempting to walk—by sliding the chair before him—his legs were jerked outwards, and soon losing control of them, the patient would fall upon the floor. The sensibility of the feet and legs was much reduced; numbness was felt in the ends of the fingers of both hands; suffered at times with sharp, shooting pains through the body and limbs, like the pains of rheumatism; the urine dribbled away involuntarily; the bowels were moved with difficulty; generative power extinct; other functions normal.

The doctor remarked that this case was under observation before the discovery of Duchenne was known to the profession in this country, and although the history did not give the minutiæ of symptoms, it contained the principal features of the disease, of which the chief was the want of power of locomotion, which was not caused by muscular paralysis, but by a *loss of power to co-ordinate the muscular movements.*

The history revealed this patient able to move the lower limbs in every way when he lay on the bed or was seated on a chair, but he could not steady and regulate their movements so as to effect locomotion. This is the main feature of the disease. The sharp, shooting pains and the numbness of the extremities, presented by this case, are generally present in this disease, but may be absent. Of seven cases reported by Dr. Radcliffe, four of the number had not the pains, and two had no anæsthesia. And the symptoms presented by the rectum, bladder and generative apparatus generally found, as in the case reported, are not necessary to constitute the disease, the essential idea of which is expressed by the name—locomotor ataxy.

On the subject of treatment, the doctor had but little confidence in any method unless resorted to in the early stage of the

disease. His case was kept in the hospital for about three months under the alternate influence of various remedies, among the chief of which were iron, phosphorus and cod liver oil, without any material benefit, and he was finally dismissed as incurable.

Report of the Committee on Diseases of the Eye. By E. L. HOLMES, M. D., of Chicago.

(Read before the Illinois State Medical Society, June 6th, 1866.)

MR. PRESIDENT AND GENTLEMEN,—As your Committee on Diseases of the Eye, I would most respectfully submit the following Report:

It is to be regretted that other members of the society have not sent to your committee contributions upon some subject of Ophthalmology.

The experience of many of our members is so extensive in the treatment of many of the diseases of the eye, that much valuable knowledge regarding these diseases could be placed on record.

As a matter of great practical interest as well as importance, I venture to repeat what I have already brought to your notice at previous meetings in reference to the subject of conjunctivitis. It has been my intention to make this disease and its sequelæ the subject of a special paper for the consideration of this society. Although I have already promised such a paper, I may here state that I hope to present it at no distant time.

With increasing experience in the treatment of these diseases in patients from every portion of this State and the Northwest generally, I am the more convinced there are few affections so common and important and at the same time so neglected as these. Conjunctivitis is often so trifling, that it yields readily to the simplest treatment; often a most serious affection, which requires the utmost care and skill of the practitioner, and occasionally, it must be admitted, baffles the best resources of the oculist, however experienced, ruining the sense of sight, or leaving the eye much impaired in usefulness. Conjunctivitis is no exception to the rule that inflammation of any organ,

however trifling it may at first appear, may resist the most skilful treatment, and yet there is scarcely a serious disease which we can so readily control by remedies, early and judiciously applied, as this.

Skill in the treatment of this disease depends principally upon the manner in which remedies are applied locally—upon the strength and frequency of the applications, more, perhaps, than upon the selection of the agent.

Internal remedies, although sometimes of very great importance, are often of secondary value—less valuable, we believe, than attention to quantity and quality of food and to protection of the eyes from all kinds of irritation.

There is scarcely anything worthy of particular notice, as indicating progress in the application either of new or of old remedies in this disease.

Chemical science multiplies almost without limit the number of agents which may be used with more or less favorable results. Experience shows, however, I think, that with quite rare exceptions, no advantage is gained by increasing the number of astringent salts used in the local treatment of conjunctivitis. Nothing has as yet superseded the old remedies. Other salts are valuable in such cases as resist all ordinary means.

The permanganate of potash is worthy of mention as an antiseptic in purulent conjunctivitis. It can be used in a solution of ten to twenty grains to the ounce of distilled water, dropped freely upon the conjunctiva at intervals between the applications of other remedies. There is reason to believe that the purulent matter, confined between the cornea and the folds of œdematous conjunctiva, which are so often observed in this disease, promotes ulceration of the cornea by its septic qualities.

The permanganate of potash is known to counteract the effects of this purulent matter. From the apparently good effects of this agent in a few cases, I am disposed to urge its use.

In the treatment of the diseases of the cornea there has been comparatively little advance during the past year. The subject of paracentesis of the cornea in cases of ulceration, hypopyum, and chronic inflammation, has attracted considerable attention

among ophthalmologists. This little operation is especially indicated in deep ulcerations and abscesses of the cornea, and in cases of great pain with tendency to increased intraocular pressure.

The connection between the choroid and sub-conjunctival membrane is so intimate through vessels perforating the sclerotic, that there is often in conjunctivitis serious complications with the choroid and ciliary processes, which not only derange the nervous supply, but also increase the tension of the intraocular fluids. Paracentesis of the cornea removes this tension and seems to aid in restoring the nervous and vascular supply to their normal condition.

Since the ordinary puncture through the cornea soon closes, thus rendering its effects of short duration, an incision into the periphery of the anterior chamber with a cataract knife, with its edge directed backward, as proposed by Hancock, has been found in many cases a valuable means of relieving pain and overcoming tension of the globe. This incision does not close so readily as the ordinary minute opening made in the cornea by paracentesis, but allows the fluids to escape slowly for many hours.

Whether the good effects of this operation depend upon the form of opening into the anterior chamber and the consequent prolonged evacuation of the aqueous humor, or also upon the division of the ciliary muscle, is a matter of some doubt. The fact that in certain painful central ulcers of the cornea, the pain becomes less, as soon as the ulcer penetrates the cornea, either spontaneously or by puncture; and that the incision through the sclerotic in Hancock's operation seems most beneficial when it reaches the periphery of the anterior chamber and discharges the aqueous humor, would seem to indicate that in many cases at least the good results are independent of section of the ciliary muscle. Although a most valuable therapeutical agent in some forms of disease, it will still often fail to accomplish all that is desirable.

In reference to diseases of the iris, there is scarcely anything new to excite our interest. There is a tendency, to a greater or less extent, among oculists to seek remedies for the treat-

ment of iritis without the use of mercury. Iodide of potash, turpentine, muriate of ammonia, have been used with good effects. Undoubtedly the most important agent is belladonna, which, in the form of a strong solution of neutral sulphate of atropine, should be instilled between the lids very frequently and from the very commencement of the attack. The failure to make an early diagnosis, and the neglect to bring the iris under the immediate influence of atropine before adhesions have taken place, are the chief causes why so many cases of iritis terminate with vision more or less seriously impaired.

Further experience is required to demonstrate the absolute value of other remedies as compared with calomel. I am confident, if members will employ atropine early and freely, they would find less necessity for using large doses of calomel.

If in any case treatment has been neglected, either on the part of the patient or physician, and the pupil becomes contracted and the iris adherent to the capsule of the lens, it should be always borne in mind that the subsequent danger from relapses is in proportion to the extent of the adhesions. Each relapse tends to increase the extent of the adhesions till, finally, the whole pupillary edge of the iris is attached to the crystalline lens. The aqueous humor collects between the lens and iris, forcing the latter forward towards the cornea. This condition cannot long continue without producing choroiditis and total loss of vision. The early removal of a portion of the iris, in cases of extensive adhesions, is not only almost certain to prevent relapses, but in cases, where the whole pupillary edge is adherent, will also restore the eye to sight.

I believe this important subject is overlooked by many practitioners, for the number of cases in which vision evidently might have been saved, but was lost from neglect of this operation, has not been small in my own experience.

In reference to the subject of cataract, there is much more to be said than the limits of this report can admit.

There is a marked tendency among the most distinguished oculists of the world to resort to the operation of extraction in nearly every form of cataract, whether hard or soft, except, perhaps, in infancy.

The removal of a portion of the iris, as in the operation for artificial pupil, seems to meet with almost universal approval among all oculists. This enables the whole cataract, nucleus and cortical substance to pass more readily through the iris with less danger of bruising it.

The more frequent use of atropine before and after the operation, for the sake of paralyzing the iris and ciliary muscle, is recommended, and I believe with much reason, by Græfe.

For a description of these modifications in the operation for extraction of cataract, I would refer to the extended articles of Critchett and Bowman in English, and of Græfe in German.

The use of the ophthalmoscope has become of more importance not only in the diagnosis of diseases of the intraocular structures but also for the investigation of diseases of certain other organs.

The use of this instrument is of special advantage to those who wish to investigate disease of the brain and nervous system. The ease with which the observer can look upon the retina and end of the optic nerve, (papilla,) and the fact that these nervous structures are so directly connected with the brain, not only by their nervous structure but also by their vascular supply, should awaken interest in all who study nervous disease. Several important monographs have been lately written upon the ophthalmoscope as a means of diagnosis of the affections of the brain.

The investigations which have thus far been made have failed to establish, except in a few diseases, such uniformity of appearances in the eye as will enable us to decide what abnormal conditions are dependent upon diseases of the brain and which are simply local manifestations of disease in the retina and optic nerve. Undoubtedly further research will extend our knowledge of this subject.

It is worthy of consideration that the use of the ophthalmoscope should no longer be confined to the specialist. The manner in which it is to be used is now so clearly explained; the plates illustrating the normal as well as the abnormal appearances in the choroid, retina, optic papilla and their vessels are now so numerous and accurate, that it requires

comparatively little practice with the instrument to acquire reasonable skill in its use.

Ophthalmoscopic appearances in the choroid or retina can be readily understood by comparison with the plates in several well known works.

It cannot but be a matter of interest to this society to be informed that the clinical advantages for those wishing to pursue the study of diseases of the eye are, year by year, increasing in the city of Chicago. In the Cook County Hospital, recently opened for the treatment of the poor of the county generally, there has been opened a special ward for the treatment of diseases of the eye and ear. This portion of the hospital has been placed under the charge of Dr. J. S. Hildreth, and will be available to all students interested in ophthalmology.

The Chicago Charitable Eye and Ear Infirmary, now just entering upon the ninth year of its existence, is still in a most prosperous condition. Its capacity and accommodations have been recently much enlarged. Two hundred and sixteen patients have received the benefits of this charity during the past year. Ample facilities have been given the student for practical observation in the diagnosis of diseases of the eye with their medical and surgical treatment. During the war, there were treated at the Infirmary a large number of soldiers, soldiers' wives and children.

The Northwestern Sanitary Commission for some months paid the board of soldiers affected with diseases of the eye while under treatment at the Infirmary. There is still a small sum of money at the disposal of the Infirmary for the use of such discharged soldiers with diseases of the eye as may wish to obtain treatment.

It is most desirable that the friends of the Infirmary should not only enable it to bestow treatment and medicines gratuitously, as they now do, but also to support the patients while in its wards. It is to be hoped the benevolent people of this State will contribute as large a fund for this Infirmary as was established in Massachusetts and New York for the infirmaries of those States.

The Infirmary is open to members of the profession at all times for inspection.

I trust members of this society will not deem of little importance the general subject of specialties, and particularly the claims of ophthalmology as a specialty.

The fact that several of our public institutions for medical instruction have appointed special lecturers for the department of ophthalmology, is proof that the subject is of no small importance in their estimation. The fact that you, for several years, have appointed a special committee on oph thalmology, is sufficient to indicate how important you consider this subject.

Your committee is among those who believe most earnestly in the great good which can be accomplished by special attention directed to particular classes of diseases.

The science of medicine is too broad for one mind to cultivate with success its whole domain. While well directed efforts in the investigation of special subjects and in the treatment of diseases of special organs cannot fail to secure a degree of skill in diagnosis and treatment superior to that of general practitioners, it must not be forgotten that no one can become a reliable specialist without careful study of all the principles of medicine and without quite extensive experience in the diagnosis and treatment of disease of other organs.

It is often said by practitioners of experience that no physician should select his specialty till he had been at active practice several years. It is undoubtedly a fact that a student, who devotes four years to the careful study of medicine previous to taking his degree of doctor, and subsequently spends five years in study and practice, has not gained more important knowledge than is required to pursue with the best advantage some important specialty.

Ophthalmology we believe should, in a measure, be an exception to this rule. The science of this specialty is now not only so extensive, that a careful study of its theory and practice, with clinical experience sufficient for accurate diagnosis, requires a long period; but the operations are of such a nature, that they demand more than ordinary practice upon both the

dead and living subject to secure perfection, or even tolerable skill.

It is not necessary to dwell upon the fact, that the recognition of abnormal changes in so delicate tissues as those of the eye requires long training of the eye on the part of the observer, and that many of the operations require a delicacy of manipulation which can only be acquired by long and patient practice.

There is scarcely an argument in favor of specialties more forcible than the fact, that nearly all the great original works in the various departments of our science have been written by specialists, or compiled from the fruits of their labors. Nearly all the great discoveries have been made by men who have devoted their energies to one special field of labor.

The science of ophthalmology affords one of the most interesting fields of study in the whole range of medicine. We can scarcely conceive of anything more delightful than the satisfaction of having restored the blind to sight. The good results of medical and surgical treatment are not more apparent in any branch of practice than in the management of diseases of the eye. The treatment of iritis, the operation for cataract and artificial pupil are specially worthy of high praise as wonders of science. While the efforts of the oculist are so often crowned with wonderful results; while the oculist himself finds so very much to encourage him and give him the satisfaction of having accomplished a great good, it must not be forgotten that his sense of responsibility and his anxieties are also very great. His patience is severely taxed in his efforts to relieve some of the more common but obstinate diseases. Patients often imagine that the oculist, if he is really well educated in his department, should in all cases prevent the loss of sight, and restore a diseased eye to health. Unfavorable results in a case of disease of the eye, often bring more condemnation upon the oculist, than even death in ordinary practice upon the general physician. In the one case the reproach is more lasting, for the patient is a living witness of the failure; in the other, the grave covers the proof of ill success, and all is soon forgotten; for the loss of an eye the medical attendant alone is blamed; the

death of a patient is regarded as a dispensation of an all-wise Providence.

The true field of labor for the oculist is in a large city or in a densely settled country. It should not be the sole object of his ambition to accumulate wealth or secure a reputation by the skill he has attained, but also to act as a teacher. We do not wish to surround any of the operations upon the eye, even the most delicate, with mystery. It is true, however, that the most important of them do require much practice in their perfect performance and much judgment in the subsequent care and treatment of the patients. A thinly settled community cannot afford the specialist a sufficient number of cases to secure the requisite skill in the management of these important diseases.

Hence, as I have said, large cities are the appropriate field of labor for the oculist. While, in such cities, with the oculist near him, the general practitioner may neglect, if he chooses, particular attention to diseases of the eye without detriment to his patients, it is one of the special duties of the general practitioner in the country to make the ordinary diseases of the eye the subject of careful study, not only theoretically but practically.

This is an absolute demand which any community in the country can rightfully make upon the physician who seeks to practice medicine in it, for these diseases are common, and upon their family physicians alone must patients depend for advice and aid.

It is a remarkable fact that the common diseases of an organ so important as the eye should be neglected by so many practitioners of the West.

It would be difficult to estimate the number of people who become blind from incompetent medical advice and treatment in the early stages of inflammation of the different tissues of the eye.

There seems to be but one explanation of this neglect. In our medical colleges the subject has either been almost wholly ignored or received so little attention, that the graduate on commencing practice, finds it almost impossible either to make a diagnosis or advise a suitable course of treatment. Usually, he

neglects through life what he has neglected in his preparatory studies.

In Europe, the most celebrated oculists are recognized as worthy of the high position they hold in the estimation not only of the public but of the medical profession.

In this country we have already many ophthalmologists who do honor to their specialty as well as the profession generally.

It is due to the high minded specialists of this country, that the profession discriminate between those who deserve full respect for their honor and faithfulness, and those who bring discredit upon their specialty by disregard for all that our profession holds sacred as it were; who perform the acts of charlatans, or who are eager to pursue as near as possible the course of dishonorable men, and yet pretend to the strictest obedience to the spirit of the code of ethics—the highest written law known to our profession. It is the course pursued by one class of specialists which has brought dishonor upon the whole system of specialties.

It is to be regretted that there is any tendency to misunderstanding and warm discussion between the conservative portion of our profession and the partizans of specialties. We hope no precipitate action will be taken on either side.

The differences of opinion are evidently more imaginary than real. It is doubtful whether any one, however conservative he may be, would object to the most devoted pursuit of a specialty, provided the medical education of those who thus devote themselves is such as fully fits them in all respects for its practice.

It is doubtful, on the other hand, whether any specialist of good reputation in our country would advocate the pursuit of a specialty in a manner which would tend to narrow the views of the practitioner.

It is probably a well established fact that the young man who spends four years in the study of language and the sciences previous to the commencement of his three years course of medical studies will be better prepared, all things considered, to perform the active duties of his profession, than one who devotes the whole seven years to the medical sciences alone.

So also the student of medicine should devote himself for years most earnestly to the study and practice of his profession before devoting his best energies to a single specialty. I have already expressed my opinion in regard to the limits within which the oculist might with propriety, from the very beginning, give his attention to his specialty.

Any system of education is to be strenuously deprecated, which would permit a student to select for study those portions alone of anatomy, physiology, materia medica and surgery, which he might consider as bearing directly upon his specialty.

I would consider the establishment of special infirmaries for the treatment of diseases of the eye and ear as a matter of great importance. Such patients, being usually in comparatively good general health, are in far better circumstances in an infirmary than they can be under the same roof with patients suffering from typhoid fever, erysipelas, suppurating wounds and other diseases, which render all our best means of ventilation in general hospitals, to a certain extent, ineffectual. Such infirmaries should be open for all students who wish to extend their knowledge of diseases of the eye or ear.

I take pleasure in stating that an American Ophthalmological Society has been formed, and is now in successful operation, which is composed of members, many of whom are well known throughout the country, as well as in Europe. I believe this society will accomplish much for science, and will tend to inspire the whole profession with the desire to place ophthalmology in the position it should hold, and to lead all students of medicine to make it the subject of careful study.

As a most earnest advocate of specialties in large cities and densely populated communities, I trust no course will ever be directly or indirectly recommended which will tend to lead the specialist to pursue a superficial course of medicine, or to increase the danger that the general practitioner in the country will neglect ophthalmology, on the ground, that it is the proper sphere of the specialist alone. These results must inevitably follow an injudicious subdivision of professional labor.

PROCEEDINGS OF MEDICAL SOCIETIES.

AMERICAN MEDICAL ASSOCIATION.

Section on Practical Medicine and Obstetrics.

DISCUSSION ON DIPHTHERIA.

The section was organized by the appointment of Dr. Lake J. Tefft, of New York, Chairman, and Dr. W. B. Bibbins, of New York, Secretary.

Dr. H. D. Holton of Putney, Vermont, Chairman of the Committee on Diphtheria, as it had prevailed in the United States, made a report by reading an elaborate and interesting paper. He gave a history of the disease from its first appearance in this country, more than a century since. He insisted that diphtheria should not be confounded with follicular tonsilitis and kindred affections; in fact, nothing should be dignified with the name that did not present the characteristic exudation, with swelling of the cervical glands, etc. Neither should it be confounded with scarlatina or croup. Tables were presented showing the fatal month, the proportion of deaths at various ages of the three diseases. The disease was divided into diphtheria simplex, diphtheria maligna or gangrenosa, and tracheal diphtheria. He entered at some length into the discussion of the sequelæ, stating that they were paralysis, rheumatism, and general cachexia.

After discussing the various plans of treatment, he divided it into local and general. Such mild cathartics should be used as the case seemed to require, although nothing like active purgation should be indulged in. Chlorate of potassa should be given pulverized with an equal amount of sugar, a little placed in the mouth, and allowed to run down the throat, that the local as well as the constitutional effect might be obtained.

Sulph. quin. and tr. ferri chloridi should be used as occasion required; also alcoholic liquors, either alone or combined with chinchona bark; wine whey, milk punch, and beef-tea were to be used to support the patient when a nourishing diet could not be taken.

The local application should be such as would prevent the absorption of fluid portions of the exudation. For this purpose persulphatum ferri was recommended; also the following: ℞. Tr. ferri chloridi, chlorat. potassæ, *aa* ʒj; glycerine pure, ʒ ij. Misce. Either of these to be carefully applied with a soft brush. Externally, an infusion of hops in lye or wood ashes would be found best for any hot fomentation.

The following deductions were made: 1st. That diphtheria has occurred as an epidemic from time to time from the first settlement of this country; 2d. That it is a distinct disease, on no account to be confounded with scarlatina or croup; 3d. That it is particularly a disease of childhood, although it exempts no age; 4th. That it is communicable to that degree that it is the duty of every physician to separate the infected from those that are well, particularly in children; 5th. That it is a disease primarily affecting the blood, consequently the treatment to be effective must be not local but general, and of such a nature as to eradicate or neutralize the poison; such local treatment should, however, be used as will prevent the absorption of fluid portions of the exudation; 6th. That when the exudation has invaded the trachea, the only hope of saving the patient is in tracheotomy.

On motion of Dr. Ellsworth Eliot, of N. Y., the report was referred to the Committee on Publication.

Dr. King wished to take exception to the remark made in this paper that when the membrane is thrown off from the trachea the patient will almost always get well. He had seen two cases, one a man and the other a child, in which the membrane had been thrown off and both had died. He could not believe that the cast-off membranes were ever reabsorbed. He stated that he had ceased to use local applications for anything more than their antiseptic effects; and for this purpose he thought that the solution of common salt was as good as anything else.

Dr. Gallagher, of Pittsburgh, Pa., expressed himself much pleased with the report, He regretted, however, that the author had made no reference to the use of alum as a local application. He had used that remedy with the happiest effects, and had more confidence in it than all the others. He had used also with great satisfaction the ordinary "hard cider," with a view of assisting the elimination of the morbid materials by the kidneys.

Dr. Worthington Hooker, of New Haven, stated that there was a great tendency in the profession to run into extremes in reference to treatment. He was not disposed to think that any disease could be successfully treated by following any one plan to the exclusion of others. The really rational plan was to follow all the indications in the particular case as they might arise. There were many marked distinctions between croup and diphtheria, but he chose only to refer to the want of that severe constitutional disturbance in the former which is never absent in the latter disease.

Dr. McCollum, of Vermont, stated that he had seen 200

cases of the disease in his county within the last five years. He had seen three or four cases recover after the membrane had been cast off. He never used gargles except as disinfectants. As regards ice, he had noticed benefit from its use in a great many cases. He had also been in the habit of allowing his patients to inhale the vapor of acetic acid, and with marked benefit.

Dr. Gross, of Pittsburgh, stated that he had had a large experience in the treatment of diphtheria in his district, and had come to the conclusion that the best means of treatment consisted, first in the use of calomel as an antiphlogistic, followed by the very free use of chlorate of potash. He had seen 400 or 500 cases of the disease since he instituted this plan of treatment, but had not met with a single fatal case. He also, in conjunction with the foregoing remedies, made use of the solution of nitrate of silver (20 grains to the ounce) as a local application, as well as saturated solutions of alum and lemon-juice on crushed ice.

Dr. Bibbins, of N. Y., stated that some time since the question was asked him by Prof. A. Clark—What was the number of cases of diphtheria which he had met with in dispensary practice? Dr. Bibbins, before he was prepared to answer such a question, wished to know from Dr. Clark what he understood to be true diphtheria—whether the essential symptoms of the disease were considered to be adenitis, false membrane, fever, and depression of the vital powers. "Of course," replied Dr. Clark, "Dr. A. Jacobi, who had studied this subject very thoroughly, has published the fact that these symptoms are always essential to the disease." A certain proportion of cases must be distributed to each individual; and such being the fact, they could not but believe that when gentlemen report such a large number of cases as occurring in their practice they do not take into account the necessary symptoms of diphtheria; that a great many report cases which they call diphtheria, which other practitioners are not willing to admit as such. He remarked that the average mortality of true cases of diphtheria among dispensary patients was thirty-three per cent., and did not suppose that under any treatment this mortality could be much decreased. Dr. A. Clark had reported the same rate of mortality. Dr. Bibbins was led to believe, from the cases which he had met with, that the tonic and supporting plan of treatment was the only reliable one.

Dr. Shumway, of N. Y., had used with great benefit, as local applications, the nitrate of silver stick, the chlorate of potash, and the chlorate of ammonia. He apprehended that the great

difficulty with many patients that were convalescent was not that they did not get medicine enough, but that there was paralysis of the throat which prevented them from swallowing them. In those cases he had used nutritive injections into the stomach with very good results.

Dr. Davis, of Ill., spoke in this connexion of blood-poisoning in many diseases, diphtheria among the rest. He thought that there was yet a great deal to be learned with reference to the true pathology of these so-called blood diseases. The query had arisen with him whether diphtheria really depended primarily upon a poison in the blood, or whether the altered condition of the blood itself, instead of being primary, was itself a secondary consequence of a prior change in the properties of the organized tissues of the human body. He discussed this question at considerable length, showing the probability that there might be such a fundamental error in nutrition, as that assimilation and disassimilation was so interfered with that the blood was poisoned in consequence.

Dr. Hewitt remarked that he had great faith in the solvent power of both alum and chlorate of potash on the diphtheritic membrane. He had taken pieces of the membrane that had been separated, and had dissolved them entirely in solutions of these salts. His treatment was to take a glass tube, pass it back into the fauces, and inject one or other of the solutions directly against the affected parts.

Dr. McIntyre, of Concord, N. H., was of the opinion that if there was any error in nutrition, it was secondary to the formation of the membrane in the throat, which, by obstruction to the respiration, interfered with the proper oxidation of the blood. This he considered to be the starting-point of the constitutional trouble. For the purpose of aiding the system in the elimination of the poison in the later stages of the disease he had used colchicum seed, guaiac, and nitrate of potash, with much satisfaction.

Dr. Taylor, of Iowa, did not think that there was any good to be attained by suggesting this and that remedy for a disease which had existed in every section of the country; for different remedies must be used in different localities, and he thought the best guide for any general plan of treatment was to be found in a proper, thorough, and enlightened view of the pathology of the disease.

INHALATION OF NEBULIZED FLUIDS.

Dr. J. Solis Cohen, of Philadelphia, read a paper entitled "Remarks on the Inhalation of Nebulized Liquids, and their Topical Application to Inflamed and Ulcerated Surfaces."

The reader stated that his design was not so much to present a review of the knowledge of the profession on these topics, or to bring forward any of his peculiar views, as much as to give a resume of the results thus far obtained from recent experience, with a view of eliciting upon a subsequent occasion a valuable paper on the whole subject of the Therapeutics of Inhalation, which should embody the experience of a number of observers, and furnish the profession with authoritative data for their general investigation, inasmuch as the literature on this subject, especially in this country, was very meagre and unsatisfactory.

The paper stated that the idea of treating diseases of the respiratory organs by inhalation, which should bring remedies directly in contact with diseased surfaces, was as old as the healing art itself; for what was more natural than to imitate the entrance of the vivifying breath of life in its access to the economy? The records of classic Greece and Rome show that this principle was taken advantage of in the inhalation of volatile substances, and in the residence of patients upon the seashore, and in the neighborhood of volcanoes. This method of treatment fell into disuse, and was again resorted to many times, and had fallen into permanent neglect for a long period, until the discoveries of oxygen leading to further chemical research, and the promulgation of the exhilarating effects following inhalation of the nitrous oxide gas, again directed attention to the subject of inhalation as a remedial agent. Then the ammoniacal exhalations from cattle yards, stables, etc., became largely employed in many affections, until too extended empirical application to all the ills of life meeting with failure, led the whole system into disuse, even for these affections for which it was originally intended. The discoveries of the properties of chlorine, iodine, etc., of the effects of the smoking of opium among the Chinese, led to the employment of similar substances; and the whole series of narcotics, resins, and all substances producing vapor became employed in this manner.

Observations of the diseases affecting workers in minerals, metals, etc., and the post-mortem revelations of the scalpel, proving the entrance of particles of dust into the lungs, led to the therapeutic employment of powders by inhalation.

After some other general remarks of a similar nature, the paper went on to relate that within a few years a new method of presenting *liquid substances* for inhalation *as such*, had become much employed in Europe, and seemed to promise an extensive field of success in the treatment of the whole class of pectoral troubles.

Every one is familiar with the effect of a stream of water

directed upon the side of a house, how a large portion of the volume of water is directed back in a shower of small streams, or coarse spray. In certain bathing establishments in Germany, many liquid applications are made on this principle to the surface of the body in the treatment of affections of special organs, and of the general system likewise. Streams of the medicated liquid are forced against metallic plates on the walls of the bathing apartments, and fall over the desired surfaces in this shower or coarse spray.

It having been noticed that amelioration of concomitant chest affections seemed to follow this exposure for other purposes, patients were sent to these establishments to respire the air thus impregnated. The beneficial results obtained at the Inhalatorium of Dr. Auphan, of Eaux-les-Bains, established in 1849, led to similar establishments elsewhere, until finally, Sales-Girons, who, in connexion with Flube, had in 1856 erected an inhalatorium at Pierre-fonds, conceived the idea of constructing on this principle a portable apparatus which could be employed by patients at their residences, and thus admit of much wider application. Sales-Girons exhibited an instrument of this kind to the Academy in 1858. His apparatus consisted of a condensing syringe, which forced a very fine stream of liquid against a convex metallic button, converting it in deflection into a very finely divided spray, having much the appearance of a dense fog or mist, the separate particles of which, suspended as they are for a time in the atmosphere, playing around much like the dust observed in a sunbeam, can be drawn into the lungs by inspiration.

The paper referred to several of these apparatus, especially the modification of the tubes of Bergson, and the employment of steam by Siegle, in lieu of the compressed air, and stated that experiments upon living animals proved the entrance of these particles into the air-cells; though for various reasons, the spray striking against many surfaces during its ingress, its dissipation into a much larger volume than could be received into the mouth, etc., but a small quantity of the liquid thus nebulized (the writer thought not more than twelve per cent.) could reach the smaller bronchial ramifications.

The writer thought that the application in this manner of liquid substances of known strength directly to the diseased surfaces would prove more prompt in effect, whether for good or ill, than when the entire current of the circulation became the vehicle of communication, perhaps affecting the general system when not desirable. The mucous membrane of the lungs is quick to absorb, secretes no chemical product to modify

chemical medicines, and has no temporary ingesta to interfere with the direct action of remedial agents applied to it.

Although the results thus far obtained are far from being positive, and many of them are unsatisfactory and negative, still they are such as to justify careful research into this new method of medication.

Some conclusions were then given as the results of recorded experience; the results of the writer's personal experience and observations, and the results of extensive experiments, carefully conducted by Dr. J. M. Da Costa, at the Pennsylvania Hospital, as well as those obtained by the latter named gentleman in his private practice.

A few remarks followed as to the manner of preparing medicines for employment in this way, and their application when different parts of the air-passages were to be medicated.

Allusion was made to the employment of this system of nebulization for local applications to inflamed and ulcerated surfaces on the exterior of the body, and a certain distance within the various cavities, and an instrument devised for this purpose was exhibited, to demonstrate that in a second or two a layer of a caustic or other solution, many times more delicate than any film which should be deposited by the slightest touch of a hair pencil, could be directed upon an ulcerated or inflamed surface, whether of large or small surface. A continuous application of course can be kept up when desired, and in this connexion the method was recommended for the production of local anæsthesia for minor operations in surgery—a subject at present exciting a good deal of attention, and brought to the notice of the profession by Dr. B. W. Richardson, of London.

On motion, the paper was referred to the Committee on Publication, for publication in the Transactions of the year; but at the request of the writer, the motion was modified to call for the appointment of a special committee to report on the "Therapeutics of Inhalation" at the next annual meeting of the Association.

On motion, the paper was received.

Dr. J. E. Clawson, of Delaware, moved that the Section appoint a Special Committee on the Therapeutics of Inhalation, to consist of three members, and that the paper of Dr. J. S. Cohen, just read, be referred to that Committee. Carried.

The Chairman appointed as such Committee:

Dr. J. Solis Cohen, Philadelphia; Dr. J. M. DaCosta, Philadelphia; Dr. L. Elsberg, New York.

Adjourned.

Section on Medical Jurisprudence, Physiology and Hygiene.

FIRST SESSION, MAY 1, 1866.

The session was organized at Concordia Hall, 3 P. M., May 1, by electing Dr. Wilson Jewell, of Pennsylvania, Chairman; and Dr. A. N. Bell, of N. Y., Secretary.

REPORT ON DISINFECTANTS.

The first paper called up was the Report on Disinfectants, which was read by Dr. E. M. Hunt, of New Jersey, chairman of the committee. On motion to refer it to the Committee on Publication, it was brought under discussion by Dr. T. Antisell, who, though he considered the report in many respects an able one, did not regard it sufficiently elaborate, particularly in the special utility of dry heat for the destruction of fungous organisms resulting from the exposed excreta of persons sick of the cholera. While he regarded the most scrupulous cleanliness and care in the removal as speedily as possible, of all accumulations of whatever kind from such persons; yet he thought that here disinfectants had their chief application, and that if means could be devised for the thorough application of heat to all such accumulations, the poisonous quality for the diffusion of the epidemic would be destroyed. Of ozone and other disinfectants dwelt upon by the committee, he thought them of much less importance, and that they occupied too large a space in the report, to the exclusion of that which he considered so much more useful.

Drs. Green, C. A. Lee, E. R. Squibb and Jas. Hibberd took issue with Dr. Antisell as to the province of the committee in the report, regarding it in the main as sufficiently elaborate, and more strictly in accordance with what reports for the Transactions of the Association should be, than if it went into collateral subjects.

Drs. Hunt and Bell defended the report on the ground that it was necessarily a chief effort on the part of the committee to present a resume of such facts as had from time to time been brought to notice in the history of disinfectants; and that it would not only be out of the province of the committee, but quite impossible, to report upon the special indications for the application of disinfectants to the various supposed causes of disease, such as the one presented by Dr. Antisell.

The motion to refer the paper to the Committee on Publication was then put, and the paper was so referred.

On motion, it was voted that Dr. Antisell be requested to prepare a paper for the next Session of the Association, *On the Causes of Epidemics.*

SECOND SESSION, MAY 2.

THE USE OF PERMANGANATE OF POTASH.

Dr. B. F. Craig read a paper on the use of permanganate of potash for the purification of water, especially during the prevalence of epidemic cholera.

The points of the paper were presented by Drs. C. A. Lee and E. R. Squibb, namely, that the disinfecting agent in the use of the permanganate of potassa and allied substances—was ozone. According to the remarks of Dr. Squibb, the power of disinfecting substances generally, excepting some, such as charcoal, which are absorbents, can be measured in a certain degree by the facility with which they give out or abstract oxygen. The paper under discussion was defective, in that the author assumed that the organic matter present in nature is the cause of cholera; and also that he took no note of the deposit of carbonate of potassa that would take place even to a mischievous degree in the use of the remedy. Yet, upon the whole, the paper should be regarded as a contribution to the important subject of disinfectants. It was, on motion, voted to commend it to the Committee on Publication.

COMPULSORY VACCINATION.

Compulsory Vaccination was presented as a subject of discussion by Dr. A. N. Bell, chairman of the committee on that subject. While he regarded the literature of *vaccination for the profession* exhausted, he considered the field still large for the purposes of the committee, namely, the diffusion of information among the people; and his chief object in presenting the subject in this manner, instead of by formal report, was to elicit the expression of the Section as to the best means of diffusing information. In the Southern States, especially, a new field was now open for reaching a large number of persons requiring vaccination and revaccination, in order to put a stop to the ravages of small-pox, and he hoped that some of the gentlemen present would be able to assist the Committee in devising means for such a purpose.

Dr. Wm. M. Charters, of Georgia, described the terrible ravages of small-pox among the negroes at Savannah on the arrival of General Sherman's army, and attributed it, not to any want of a correct appreciation of the utility of vaccina-

tion, but to the *imperfect manner* in which vaccination was performed.

It was the practice, to a great extent, to commit this subject to unprofessional persons. In the Southern States, especially, masters and overseers thought themselves equally competent with physicians for so simple an operation. But the result justified the conclusion, that the disease they communicated was frequently a *vaccinoid* sore only, and not a vaccine vesicle. The operation was performed more with reference to making a *sore* than anything else, and that was regarded as the prophylactic, but exposure proved to the contrary. In other cases, however, and these were by no means insignificant, vaccination had been well performed and it had taken perfectly, but the susceptibility to it and to small-pox not having been exhausted, the individual was still liable. He therefore advocated exhaustive vaccination to begin with; let the operation be repeated until it ceases to produce an impression, and he believed susceptibility to small-pox would be destroyed for the whole lifetime of the individual. To accomplish this, he believed in the necessity of compulsory laws, requiring every person to be thoroughly vaccinated, under such penalties as would insure compliance.

Drs. Lee and Hibberd referred to the ineffectual State laws on the subject, and also to the no less ineffectual laws of England, and thought that something more was required.

Dr. Nebinger did not believe that such laws could ever be made effectual in this country, and thought that the work of the Committee to diffuse information—which, so far as vaccination without danger, or a belief in its prophylactic powers was concerned, was effectual—only now need be pressed to the equal necessity of *re*vaccination. On the necessity of *re*vaccination, he knew that there were yet many physicians and a multitude of other people needing information. He cited several cases in illustration. He hoped that the Committee would be continued, and that every member of the Section would do his utmost to press upon the attention of the profession and the public the facts that had been already presented in the last year's report.

Dr. Toner expected much good to result from registration, a subject that was now attracting much attention; and when it was so far advanced that correct information could be gained as to who was and who was not vaccinated, he thought that one great obstacle would be removed—the necessity of universal vaccination would be so much more apparent that the purpose of the Committee would be much facilitated.

On motion, it was voted that the Section recommend that the Committee be continued.

Dr. C. A. Lee introduced *leakage of gas pipes* as a subject well worthy of the consideration of the Section and of the Association.

On motion, it was voted that Dr. J. C. Draper, of New York, be requested to prepare a report for the next session of the Association on the leakage of gas pipes.

THIRD SESSION, MAY 8.

ON ALCOHOL AND ITS RELATIONS TO MAN.

This paper, on Alcohol and its Relations to Man, by Dr. Gerard F. Morgan, of Maryland, was presented and in part read by Dr. Dunbar, member of the special Committee with Dr. Morgan to present a report upon this subject.

After some discussion, it was, on motion, voted, that the report presented by the Committee on the subject be referred to a new committee, to report at the next session.

Dr. Dunbar, of Maryland, Dr. T. Antisell, D. C., and Dr. N. S. Davis, Ill., were nominated, and the request referred to the Association.

Adjourned *sine die.*

ANNUAL MEETING OF THE IOWA STATE MEDICAL SOCIETY.

The Iowa State Medical Society met in the basement of the Second Baptist Church, Davenport, on Wednesday, the 9th of May, at 10 o'clock A. M., the attendance being fair and various parts of the State represented.

In the absence of the President, Dr. J. C. Hughes, of Keokuk, Dr. J. Williamson, of Ottumwa, Vice-President, took the Chair and called the meeting to order. Dr. J. W. H. Baker, of Davenport, appeared as Secretary.

The Rev. Mr. Watson, of the Baptist Church, was called upon and opened the proceedings with a fervent prayer.

In the absence of Dr. J. M. Witherwax, President of the Scott County Medical Society, Dr. Thos. J. Saunders received the members, addressing them as follows:

Gentlemen of the Iowa State Medical Society:

Again we give you cordial and hearty welcome to the city of Davenport. Since the organization of the Society, sixteen years ago, this is the third time we have been honored by your presence. The meeting of 1859, particularly, has a strong

abiding place in the memory, invested as it was by an intensity of zeal and development of ability, promising as an eventual result of our associated capacity, great and permanent good. The disturbed state of the country for the past five years may have retarded somewhat our progress towards that liberal scheme of expansion which was intended to embrace and concentrate the Medical mind of Iowa. But your presence here to day is regarded as an harbinger of renewed interest in all that pertains to our noble calling—an interest, it is hoped, which, with the return of peace to the land, may go on from year to year constantly increasing.

May the time come when, instead of a limited number of delegates from those localities only which preponderate in population, our annual gatherings shall be composed of learned and experienced representatives from every county in the State. With Iowa's steady and rapid march as a commonwealth, the desire of every true votary of medical science within her borders should be to unfold and sustain our peculiar sphere of usefulness, in a manner fully equal to her constantly enhancing political greatness. If, in all our movements as a body, we are governed by reasonable prudence, animated by unflagging enthusiasm, and constantly recognize the importance of unity of action, then we have reason to believe the anticipated fruits of close organization will be made manifest, to some at least, who, from the very beginning, have been assiduously engaged in maintaining the dignity of the profession, as well as to those who now have control of the laboring oar.

With a vivid remembrance of the hospitality the physicians of Scott county have experienced in various parts of the State, we greet you on this occasion, and esteem it a privilege to have the opportunity of reciprocating the kindness which we have uniformly met when abroad.

The proceedings of the last annual meeting, held at Ottumwa, were then read by the Secretary and approved.

Dr. W. F. Peck, of Scott, offered the following, which was adopted:

Resolved, That Doctors Iles, Twining, Harrison, Blackburn, Hudson, Carpenter, French, Richardson and Rodman, be invited to seats in this body until they shall become members.

In accordance with the usual custom, the Constitution and By-Laws of the Society were then read by the Secretary.

The Censors of the Society all being absent, the following gentlemen were appointed to examine applicants for admission to membership, viz: Drs. Peck, Saunders, Watson, Whinnery, and Tomson. Soon after a report was made, and new members

were unanimously elected by ballot (Drs. McCortney and Peck being tellers) as follows:

Dr. L. French, graduate of Berkshire Medical College, Massachusetts, Dec., 1853.

Dr. S. D. Richardson, graduate of Ohio Medical College, Cincinnati, O., March, 1839.

Dr. Thos. J. Iles, graduate of Transylvania University, Kentucky, March, 1838–9.

Dr. A. M. Carpenter, graduate of University, Louisville, Ky., March, 1854.

Dr. A. T. Hudson, graduate of Albany Medical College, N. Y., Feb., 1847.

Dr. J. C. Blackburn, graduate of Cincinnati College Med. and Surgery, Ohio, March, 1855–6.

Dr. A. A. Rodman, graduate of Keokuk Medical College, Iowa, March, 1864–5.

Dr. Watson, of Dubuque, offered the following, which was adopted:

WHEREAS, The regular annual meetings of this Society have been somewhat interrupted by the absence of many members of the profession in the service and from other causes, which has resulted in placing a large number upon the suspended list; therefore,

Resolved, That members suspended for the non-payment of dues be permitted to resume their standing in the Society at this meeting, by the payment of the annual fee for the present year.

On motion, the following committee on nominations for officers of the Society, was raised: Dr. Peck, of Scott; Dr. Carpenter, of Lee; Dr. J. C. Lay, of Dubuque; Dr. Rousseau, of Washington; Dr. Whinnery, of Lee; Dr. Carhart, of Linn; and Dr. Tomson, of Scott.

The presiding officer laid before the Society a communication from Mrs. Annie Wittenmyer, Matron of the Soldier's Orphans Home, extending an invitation to visit the institution, which was accepted, with the understanding that the time of said visit should hereafter be designated.

On motion of Dr. McCortney, the Society adjourned till 2 o'clock P. M.

AFTERNOON SESSION.

At 2 o'clock P. M. the Society again met, Dr. Williamson taking the Chair.

The Secretary presented letters received from Dr. J.W. Rob-

bins, of Manchester, and Dr. A. G. Field, of Des Moines, excusing themselves for non-attendance.

The Committee on Nomination asked for and obtained time.

Dr. Watson, Treasurer, made a report, which was accepted.

Dr. Gamble, from the Board of Censors, made a report in favor of the following persons for membership, who were subsequently balloted for and elected:

Dr. James Irwin, graduate of Geneva Medical College, N.Y., 1845.

Dr. George W. Carter, graduate of University of Michigan, 1853.

Dr. P. V. Clark, graduate of Keokuk Medical College, 1860.

Dr. W. A. Hosford, graduate of Castleton Medical College, Vt., 1846.

The regular call for reports of committees was then proceeded with.

Professor Carpenter read a highly interesting report prepared by J. C. Hughes, giving his experience in and advocacy of the bi-lateral operation for removal of urinary calculi. The statement was made that he had operated in all twenty-one times with only a single fatal termination; and that, four times successively, he had been called upon to perform upon the same person, a patient of 65 years of age. The report excited much interest and was received and referred to Committee on Publication. After being read, Drs. Peck, Baker, Williamson, Lay and Whinnery made each remarks, giving results of treatment of cases of urinary calculi coming under their notice.

Dr. Williamson laid before the Society a report prepared by Dr. Thrall, of Ottumwa. The reading of it was postponed until the evening session.

Dr. Baker read a report upon "New Remedies," which was received and referred to Committee on Publication. Upon its conclusion, a general disposition being manifested to give expression to a variety of views, the continuation of the subject was postponed until the evening session.

The reception of reports was now discontinued, and the Society proceeded to the consideration of miscellaneous business.

The Secretary presented a bill for expenses, which was referred to an auditing committee consisting of Drs. Whinnery and Iles.

The subject of appointing a time for visiting the Soldiers' Orphans Home agreeably to the invitation tendered this morning, was taken up, and after some discussion was laid upon the table for the present, a strong disposition being manifested to comply, if time would permit.

Dr. Saunders offered the following, which was adopted:

Resolved, That Professor A. M. Carpenter, of Keokuk, Dr. J. W. H. Baker, of Davenport, and Dr. Wm. Watson, of Dubuque, be appointed a committee for the purpose of presenting resolutions expressive of the sense of this body in relation to our late fellow associate, Professor D. L. McGugin, who, since our last meeting, has departed this life.

The Society then adjourned till 7½ o'clock this evening.

EVENING SESSION.

The Society met at 7½ o'clock.

Dr. Williamson called Dr. Watson to the chair, and read a paper entitled "Hemato-Pathology, in its application to Diphtheria and Spotted Fever," prepared by Professor H. L. Thrall, of Ottumwa. The same was referred to the Committee on Publication.

The discussion of the subject of "New Remedies," then occupied the Society for the rest of the evening.

Then adjourned till 9 o'clock to-morrow (this) morning.

SECOND DAY.

At 9 o'clock A. M., the Society was called to order, Dr. Williamson in the chair.

The Secretary being absent, Dr. W. F. Peck was elected to occupy the position temporarily.

Dr. Whinnery presented resolutions in relation to the manner of appointing Hospital Stewards at the State Prison, which, after some explanation, and with the mover's consent, was laid on the table for the present.

Dr. Gamble, from the Board of Censors, reported the following for membership, who were balloted for and elected:

Stephen M. Cobb, Maine Medical School, 1852.

Melville M. Shearer, Keokuk Medical College, 1864.

Dr. Peck made a report from the Committee on Nominations, which was received.

The amendment to the Constitution, offered by Dr. Baker at the meeting last year, "allowing the election of a permanent Secretary, and the location of the place of meeting at one point for the term of five or ten years next succeeding the season of 1866," was taken up and unanimously adopted.

Dr. Blackman offered the following resolution:

Resolved, That this Society shall hold its meetings annually for five years succeeding May 9th, 1866, at Davenport, Iowa.

The resolution, after some discussion, was adopted, having been amended so as to read "at Davenport, Iowa, or Des Moines, Iowa."

Prof. Carpenter made the following report:

The committee on resolutions expressive of the sense of this body relative to the death of Dr. D. L. McGugin, beg leave to report the following:

WHEREAS, Since the last meeting of the Iowa State Medical Society, by a dispensation of Divine Providence, our lamented associate, Dr. D. L. McGugin, has been removed from us by death, and summoned to his reward—therefore,

Resolved, That while we bow with submission to the stern decree, we mourn with sincere and heartfelt sorrow, the loss of our departed brother, and will ever cherish the memory of his unwavering child-like humility; his open, generous, manly virtues; his professional zeal, and his untiring Christian benevolence.

Resolved, That in his loss this Society is deprived of one of its most earnest co-laborers, whose life has been devoted with a singleness of purpose to the advancement and upbuilding of a profession honored among men.

Resolved, That we tender to the bereaved family of our deceased brother the heartfelt sympathies of this body, and that they be furnished with a copy of the proceedings.

A. M. CARPENTER,
Chairman of Committee.

The report having been read, the same was accepted and unanimously adopted.

Dr. Maxwell moved to take up the invitation to the Soldiers' Orphans Home, and that a committee of five be appointed to visit the institution and report.

Agreed to, and Drs. Cobb, Carpenter, Lay, Gamble and Hudson were appointed said committee.

The report of the Committee on Nominations was taken up, and the Society proceeded to the election of officers for the ensuing year, with the following result:

President—Dr. John W. H. Baker, of Scott.
Vice-President—Dr. James C. Lay, of Dubuque.
Secretary—Dr. Washington F. Peck, of Scott.
Corresponding Secretary—Dr. Abram M. Carpenter, of Lee.
Treasurer—Dr. M. B. Cochran, of Johnson.
Censors—Dr. Rousseau, of Washington; Dr. Schaffer, of Jefferson; Dr. Gamble, of Scott; Dr. Watson, of Dubuque, and Dr. Field, of Polk.

The recommendation of the Nominating Committee, that the next meeting of the Society be held at Davenport, was adopted.

The newly elected President was then conducted to the chair, and acknowledged the compliment of being chosen to the position in a brief and appropriate address.

The Society then proceeded to the election of delegates to the American Medical Association, to meet in Cincinnati next year, as follows: Dr. Thos. J. Saunders, Dr. A. M. Carpenter, Dr. Whinnery, Dr. Watson, Dr. Geo. W. Carter, Dr. Carhart, Dr. W. F. Rodman, Dr. Blackwell, Dr. Gamble, Dr. Hudson, Dr. Cobb, Dr. Lloyd, Dr. J. C. Lay, Dr. Williamson, and Dr. J. M. Schaffer, the delegates to have the power of substitution from members of the State Society.

The Society then adjourned till 2 o'clock P. M.

AFTERNOON SESSION.

At 2 o'clock P. M., the President, Dr. Baker, took the chair and called the meeting to order.

Drs. Gregg, Truesdale, and Plummer, of Rock Island Medical Society, being present, were invited to take seats in the meeting.

Dr. Whinnery presented some interesting cases in connection with Obstetrics, occurring in his practice, which were read and referred to the Committee on Publication.

Dr. Peck presented a paper upon a medical topic, as chairman of a committee raised for the purpose of investigating its history and treatment, and read the same to the Society. It was referred to the Committee on Publication.

Dr. John H. Rauch, former President of the Iowa State Medical Society, then delivered an eloquent address, which commanded the undivided attention of the members for more than an hour. Upon its conclusion, the thanks of the Society were tendered to Dr. Rauch and a copy requested for publication.

The following resolutions presented by Dr. Whinnery this morning, were taken up and adopted:

Resolved, In view of the fact that the Hospital at the Iowa Penitentiary is one of the best positions in the State for young men to study medicine, that the Warden be requested by this Society to give the preference to those who are about to enter upon the study of our profession for the Stewardship.

Resolved, That the institution owes this to the Medical profession, and that if the present Warden does not grant it agreeably to the desire of the attending physician, we respectfully request the Legislature at its next session to pass an act making it imperative to do so.

On motion, The thanks of the Society were unanimously tendered to the Rev. Mr. Watson and those having charge of

the Baptist Church for the use of their Lecture-room during their stay.

Dr. Williamson offered the following, which was adopted:

Resolved, That all old Committees on diseases and subjects for report, are hereby discharged and that new ones be formed.

On motion of Dr. Watson, Drs. Gamble and Saunders were appointed to act in connection with the President as Committee on Publication.

Adjourned to meet at Dr. Iles' office at 7 o'clock P. M.

EVENING SESSION.

At 7 o'clock P. M., the Society met at the office of Dr. Iles, the President in the chair.

Various committees were appointed for the purpose of reporting at the next Annual Meeting.

Dr. Gamble, from the Board of Censors, reported for membership as follows, and a ballot resulted in their unanimous election:

Dr. Samuel Knox, Graduate of Penn'a Medical College, Pa., 1857.

Dr. James Guthrie, Graduate of Western Reserve College, Ohio, 1860.

The amount of matter to be published was left to the discretion of the Committee on Publication.

The Committee appointed to visit the Soldiers' Orphans Home made a report that greater attention to the sanitary condition of the vicinity would, in their opinion, be of advantage to the health of the inmates; also, that the entire control of the matter should be under the direction of the medical officer. Report adopted.

The Society then adjourned *sine die*.

ILLINOIS STATE MEDICAL SOCIETY.

The regular Annual Meeting of the Illinois State Medical Society assembled in Powers' Hall, Decatur, June 5th, at 9½ o'clock A. M. The President, Dr. J. M. Steele, of Grandview, called the Society to order, and the Rev. D. C. Marquis opened the exercises by prayer.

Dr. E. W. Moore, Chairman of the Committee of Arrangements, welcomed the delegates to the hospitalities of the city of Decatur, and reported as present the following members:

Drs. J. H. Hollister, J. S. Jewell, E. L. Holmes, J. W. Freer, N. F. Quales, Ira Hatch, T. D. Fitch, and S. A. McWilliams, of Chicago, Cook county; T. F. Worrell, D. L. Crist, C. R. Parke, John Little, S. W. Noble, and D. O. Crist, of Blooming-

ton, McLean county; J. A. Heckelman, Alex. McBride, S. McBride, S. T. Trowbridge, B. A. Allison, J. A. W. Hostetter, O. F. Parker, Ira N. Barnes, E. W. Moore, and J. Brown, of Decatur, Macon county; Daniel Stahl, Louis Watson, Joseph Robbins, and W. M. Landon, of Quincy, Adams county; Geo. T. Allen, P. J. Wardner, and A. A. Patterson, of Springfield, and W. H. Veatch, of Pawnee, Sangamon county; Geo. R. Bibb and David Prince, of Jacksonville, and R. E. McVey, of Waverly, Morgan county; E. W. Mills, of Sullivan, Moultrie county; J. H. Tyler, B. K. Shurtleff, R. T. Richards, and W. W. Adams, of Clinton, DeWitt county; H. Noble, of Heyworth, McLean county; N. Wright, of Chatham, Sangamon county; Geo. W. Albin, of Neoga, Cumberland county; F. B. Haller, of Vandalia, Fayette county; J. M. Steele, of Grandview, Edgar county; L. T. Hewins, of Loda, Iroquois county; S. P. Breed, of Princeton, Bureau county; W. M. Chambers, of Charleston, Coles county; John Wright, of Clinton Institute of Medicine; and J. O. Hamilton, of Jerseyville, Jersey county.

The following were then proposed and duly elected permanent members:

Drs. J. M. Harwood, W. E. Wilson, B. A. Allison, Charles N. Denison, W. B. Hostetter, O. F. Parker, J. A. Heckelman, and W. H. Walters, of Decatur, Macon county; P. H. Bailhache, H. C. Barrell, B. M. Griffith, and H. H. Roman, of Springfield, Sangamon county; J. N. Ralston, of Quincy, Adams county; C. Gorham, of York; W. M. Wilcox, of Mattoon; S. B. McGlumphy, of Lincoln; D. T. Ryner, of Macon; J. P. Taggert, of Cairo; C. J. Gill, of Bloomington; J. A. Ward, of Livingston; and N. G. Blalock, of Mount Zion, Macon county.

A letter from Dr. N. S. Davis, Permanent Secretary, was read, stating that he was unable to attend the present Annual Meeting, on account of severe sickness.

On motion, Dr. S. A. McWilliams, of Chicago, was appointed Secretary *pro tem.*

The following committee of one from each county represented, was appointed to nominate the officers, and fill the Standing Committees, for the ensuing year, viz:

Drs. H. Noble, of McLean county; Louis Watson, of Adams county; S. P. Breed, of Bureau county; J. W. Freer, of Cook county; W. M. Chambers, of Coles county; G. W. Albin, of Cumberland county; J. H. Tyler, of DeWitt county; J. M. Steele, of Edgar county; F. B. Haller, of Fayette county; L. T. Hewins, of Iroquois county; S. T. Trowbridge, of Macon county; R. E. McVey, of Morgan county; N. Wright, of Sangamon county; and S. B. McGlumphy, of Logan county.

The Committee retired, and after a brief consultation, reported the following nominations:

For *President*—Dr. F. B. Haller, of Vandalia.
" *Vice-President*—Dr. L. T. Hewins, of Loda.
" *2d Vice-President*—Dr. N. Wright, of Chatham.
" *Treasurer*—Dr. J. H. Hollister, of Chicago.

On motion, the report of the Committee was accepted, and the candidates nominated unanimously elected.

Drs. W. M. Chambers and H. Noble were appointed a committee to conduct the officers just elected to their places.

Dr. J. M. Steele, the retiring President, thanked the Society for its uniform kindness and support, and retired with the cordial good wishes of every member.

Dr. F. B. Haller, the President elect, was then introduced, and, after a brief and appropriate address, entered upon the discharge of his official duties.

A communication from the Adams County Medical Society was presented and read, making certain charges against Dr. Addison Niles, of Quincy.

After some discussion, the following resolution, offered by Dr. T. F. Worrell, of Bloomington, was adopted, viz:

Resolved, That a committee be appointed, who shall prefer charges against Dr. Addison Niles, based on the representations made by the Adams County Medical Society, and shall furnish him with a copy of such charges, with notice to appear before this Society at its next regular annual meeting.

Drs. T. F. Worrell, of Bloomington, J. Brown, of Decatur, and H. Noble, of Heyworth, were appointed such committee.

The following report of the Permanent Secretary and Publishing Committee was then read:

In accordance with the Constitution, which provides that the State Medical Society shall hold its annual meeting on the first Tuesday in June, whenever the American Medical Association meets on the first Tuesday in May, the Permanent Secretary gave early notice, in both the Medical Journals published in the State, that the present meeting would be held at Decatur on the first Tuesday in June. Also, that, in consequence, the delegates appointed to attend the American Medical Association in Boston last year, must also fill the same appointment at Baltimore this year, as there would be no opportunity to appoint their successors. He furnished each delegate new credentials for that purpose.

In accordance with the directions of the State Society, at its last annual meeting, the Committee of Publication put the Transactions of the last year to press early, and, as usual, printed

300 copies; also, separately, 500 copies of the Constitution, By-Laws and Code of Ethics.

Although the whole expense of typesetting for the Transactions was avoided by first publishing the matter in the *Examiner*, yet the printer's bill for the present year is as follows:

300 copies of Transactions for 1865,		$195 49
500 do.	Constitution, By-Laws, etc.,	57 00
	Total,	$252 49

The amount paid on this bill and the balance unpaid, will be shown by the report of the Treasurer.

Of the 300 copies of Transactions, about 40 were required to supply members of the Society, about 20 have been sent to the various medical periodicals, leaving about 240 copies on hand. About the same proportion of those published each year, since the undersigned has been Secretary, are still left to encumber the shelves of his office. In consequence of the very small number of copies of Transactions either paid for or read by the members of the State Society, and the constant indebtedness of the Treasury, we would respectfully suggest that, in future, the Committee of Publication be instructed to publish the proceedings of the Society in the *Chicago Medical Examiner*, and issue extra copies to the number only just sufficient to supply such members of the Society as have paid their dues before the 1st of August. The *Chicago Medical Journal* could also publish so much of the proceedings as its editors might choose. By this course, the Society would soon be out of debt and receive all the real benefits that have ever been obtained by the publication of their proceedings.

All of which is submitted.

N. S. DAVIS,
Permanent Secretary.

After having been read, the report was referred to a Special Committee, consisting of Drs. S. W. Noble, W. M. Chambers and T. F. Worrell.

The report of Dr. J. H. Hollister, as Treasurer, was read and referred to an auditing committee.

The Treasurer also reported that, in accordance with the instructions of the Society, he had caused to be prepared a book in which to preserve the constitution, by-laws, list of officers and members, and the Treasurer's accounts.

The Society then adjourned until 2 o'clock P. M.

AFTERNOON SESSION.

The Society was called to order at 2 o'clock P. M., Dr. F. B. Haller, President, in the chair.

Dr. H. Noble, Chairman of the Committee on Practical Medicine, presented his report, with an accompanying paper from Dr. F. B. Haller. After reading, the report and accompanying paper were referred to the Committee of Publication.

Dr. E. L. Holmes, Committee on Ophthalmology, presented and read his annual report, which was accepted and referred to the Committee of Publication.

On motion, it was resolved that the annual assessment on each member for the present year be *three dollars*.

The Committee to whom had been referred the Annual Report of the Permanent Secretary, made the following report:

Your Committee, to whom was referred the report of Dr. N. S. Davis, would respectfully report that, in our opinion, the publication of the proceedings of this Society in either of the Medical Journals would be inexpedient.

We therefore recommend that the proceedings be published in pamphlet form, and that there be but one hundred copies issued.

We further recommend that the Committee of Publication have the privilege of first publishing the proceedings in the *Medical Examiner*, to save expense—provided there is not money enough in the treasury to pay for the immediate publication.

We likewise recommend that the annual assessment be three dollars, and that the Treasurer correspond with every delinquent member, explaining his manner of keeping the records, and urging them in the strongest manner possible to keep themselves good on the books.

All of which is very respectfully submitted.

S. W. NOBLE,
W. M. CHAMBERS,
T. F. WORRELL.

After considerable discussion, on motion of Dr. D. Prince, the report of the Committee was laid on the table.

Dr. D. Prince proposed, as an amendment to the clause of the Constitution relating to permanent members, that the words "but without the right of voting" be stricken out. Proposition lies over one year, under the rule.

On motion, the Society adjourned until 8 o'clock P. M.

EVENING SESSION.

At 8 o'clock P. M., the hall was well filled with a popular audience, to hear an address from Dr. Geo. T. Allen, of Springfield. The President called the meeting to order, and the

speaker was introduced by Dr. E. W. Moore, Chairman of the Committee of Arrangements.

The address of Dr. Allen was listened to with much pleasure and profit. At its close, the Society adjourned until 9 A. M. of Wednesday.

WEDNESDAY, SECOND DAY.

The Society met at 9 o'clock A. M., the President, Dr. Haller, in the chair.

The minutes of the previous day's proceedings were read by the Secretary and approved.

On motion of Dr. J. Brown, the Society tendered a vote of thanks to Dr. Allen for his public address last evening.

Dr. J. H. Hollister presented and read a paper on Bromine and its compounds as remedial agents, and the pathological conditions indicating their use. The paper elicited some discussion, and was referred to the Committee of Publication.

Dr. J. S. Jewell presented and read a full and carefully prepared report on Cerebro-Spinal Meningitis, which was listened to with close attention, and referred to the Committee of Publication.

On motion, the Society adjourned to 1½ o'clock P. M.

AFTERNOON SESSION.

The meeting was called to order at 1½ o'clock P. M., the President, Dr. Haller, in the chair.

The Secretary read a paper on Spotted Fever, by Dr. F. R. Payne, of Marshall, which was referred to the Committee of Publication.

Drs. Worrell and Brown, from the committee appointed to prefer charges against Dr. Addison Niles, of Quincy, reported as follows:

"The undersigned, having been appointed a committee to prefer charges against Dr. Addison Niles, of Quincy, a member of this Society, respectfully submit the following report:

"That we charge Dr. Niles with having violated the Code of Ethics, by representing the 'Quincy Medical Society,' which we consider irregular, being composed, in part, of members who had been expelled from the Adams County Medical Society.

T. F. WORRELL,
J. BROWN."

The report was accepted, and the Secretary instructed to furnish Dr. Niles with a copy, and request him to answer to the same in person at the next Annual Meeting of the State Medical Society.

Dr. H. Noble, Chairman of the Committee on Nominations, made the following report:

For Place of Next Annual Meeting—Springfield.

For Assistant Secretary—Dr. P. H. Bailhache, of Springfield.

Committee of Arrangements—Drs. N. Wright, of Chatham; B. M. Griffith, H. B. Buck, J. Townsend, and Wm. Jayne, of Springfield.

Committee on Practical Medicine—Drs. J. Adams Allen, of Chicago; R. E. McVey, of Waverly; and L. T. Hewins, of Loda.

Committee on Surgery—Drs. H. W. Davis, of Paris; C. R. Parke, of Bloomington; and G. R. Bibb, of Jacksonville.

Committee on Obstetrics—Drs. DeLaskie Miller, of Chicago; N. Wright, of Chatham; and J. N. Ralston, of Quincy.

Committee on Drugs and Medicines—Drs. P. H. Bailhache, of Springfield; N. T. Quales, of Chicago; and J. Miner, of Waverly.

Committee on Ophthalmology—Dr. E. L. Holmes, of Chicago.

Committee on Curvature of Spine and Hip Disease—Drs. J. W. Freer and R. G. Bogue, of Chicago.

Committee on Plastic Surgery—Dr. David Prince, of Jacksonville.

Committee on the Co-Relation between Electricity and Nervous Force—Dr. D. T. Ryner, of Macon.

On motion, the report of the Nominating Committee was accepted, and its recommendations adopted.

On motion of Dr. T. D. Fitch, a committee of three was appointed, to report at the next annual meeting, on "Specialties and Medical Advertising."

The President appointed Drs. T. D. Fitch, N. S. Davis, and D. Prince, to act as such committee.

A paper on the use of Bromide of Ammonium in the treatment of Epilepsy, by Dr. Ira Hatch, of Chicago, was read by Dr. Hollister, and referred to the Committee of Publication.

Dr. D. Prince proposed the following amendment to the Constitution:

"*Art. 3d—Meetings*—The Annual Meetings of this Society shall be held on the *Third* Tuesday in May of each year."

On motion, the following members were duly elected Delegates to the next Annual Meeting of the American Medical Association:

Drs. F. B. Haller, of Vandalia; David Prince, of Jacksonville; J. H. Hollister, of Chicago; Louis Watson, of Quincy; H. Noble, of Heyworth; T. F. Worrell, of Bloomington; S. T. Trowbridge, of Decatur; John Wright, of Clinton; P. J. Ward-

ner, of Springfield; D. L. Crist, of Bloomington; J. M. Steele, of Grandview; J. A. W. Hostetter, of Decatur; L. T. Hewins, of Loda; G. W. Albin, of Neoga; Wm. M. Chambers, of Charleston; C. Goodbrake, of Clinton; S. W. Noble, of Bloomington; Samuel McBride, of Decatur; James Miner, of Waverly; J. Brown, of Decatur; Geo. T. Allen, of Springfield; R. T. Richards, of Santa Anna; J. Robbins, of Quincy; R. E. McVey, of Waverly; and W. E. Wilson, of Decatur.

On motion of Dr. Hollister, each delegate was authorized to appoint a substitute, in case of his own inability to attend.

Dr. Clarke, of Illiopolis, exhibited an interesting specimen of monstrosity.

Dr. S. P. Breed, of Princeton, exhibited a uterine polypus, with a verbal history of the case, for which he received the thanks of the Society.

Dr. E. W. Moore, Chairman of the Committee of Arrangements, presented a list of volunteer papers.

Dr. C. R. Parke, of Bloomington, read the report of a case of death from the inhalation of chloroform, which, after an interesting discussion, was referred to the Committee of Publication.

Dr. S. T. Trowbridge, of Decatur, presented a communication in the form of a law to be enacted by the State Legislature, designed to secure a higher grade of qualifications for practising physicians in this State.

On motion of Dr. Stahl, of Quincy, the paper of Dr. Trowbridge was referred to the following committee:

Drs. S. T. Trowbridge, Geo. T. Allen, P. H. Bailhache, H. Noble and David Prince, and the same instructed to prepare suitable measures of legislation, and to urge their passage by the next Legislature.

Dr. N. Wright, of Chatham, read a paper on Cholera, which was referred to the Committee of Publication.

Dr. Veatch presented a paper on Malarial Fever, which was referred to the Committee of Publication.

Dr. Geo. T. Allen, of Springfield, was appointed a Special Committee to report on the Radical Cure of Reducible Hernia.

Dr. W. M. Chambers, of Charleston, was appointed a Special Committee to report on Syphilis.

On motion of Dr. S. W. Noble, it was resolved that, at the next Annual Meeting, all volunteer papers be handed to the Chairman of the Committee of Arrangements, at the commencement of the meeting.

On motion of Dr. Hollister, a vote of thanks was unanimously tendered to the Committee of Arrangements, and to the Physi-

cians of Decatur, for the very judicious and hospitable manner in which they had received and entertained the Society at its present meeting.

On motion, the Society adjourned *sine die.*

The number in attendance at the present meeting was larger than at any previous meeting since the organization of the Society.

S. A. McWILLIAMS, *Sec'y pro tem.*

EDITORIAL.

BOOK NOTICES.

Urinary and Renal Diseases, including Urinary Deposits. Illustrated by numerous cases and engravings. By WILLIAM ROBERTS, M. D., Fellow of the Royal College of Physicians, London; Physician to the Manchester Royal Infirmary; Lecturer on Medicine in the Manchester School of Medicine. Henry C. Lea, Philadelphia. 1866.

One of the most encouraging facts connected with the medical literature of the present time, consists in the originality of the matter which is addressed to the reading public. The day of compilation has passed, and we are seldom obliged to swallow a statement because of the respectable antiquity of the party who first started the tradition. Demonstration is rapidly supplanting hypothesis, and doubt is giving way to the certainty of positive knowledge. The boundary which separates the known from the unknown, is less shadowy and uncertain. Every year sets forth more precisely the exact area of the territory which must yet be explored.

Dr. Roberts has presented the profession with a book, which will be gladly welcomed by all who desire to become acquainted with all that in this year, 1866, is known about urinary and renal diseases. No one can fail to read the work with interest; no physican who is often called to treat cases of urinary and renal diseases, can afford to be without this treatise. Each chapter is a monograph of the particular disease under consideration; and the whole field is thus passed under review in a manner which not only leaves very little to be desired, but also indicates the phenomena that yet demand investigation with a

precision which must stimulate the progress of inquiry. The clinical reports of cases are numerous, and are utilized by appropriate commentary, after the example of Bennett in his work on Clinical Medicine. The micrographic illustrations are a whole generation in advance of the delineations of Prout and Golding Bird. From cover to cover, the book is full of meat, and that of the juciest, richest flavor.

For sale by S. C. Griggs & Co., 41 Lake street, Chicago. Price, $4.50.

Biographical Sketches of Distinguished Living New York Surgeons. By SAMUEL W. FRANCIS, A. M., M. D., etc. New York: John Bradburn. 1866.

The readers of the Philadelphia *Medical and Surgical Reporter* will at once recognize in this volume a reprint of the entertaining sketches which have appeared from time to time in the columns of that periodical. Inheriting his father's social and literary tastes, Dr. Francis has done for his surgical friends that which the celebrated John W. Francis did for the ancient worthies of his own time. Biographical sketches are always read with eagerness — especially when they illustrate those peculiarities which have made men eminent.

The contents of this little volume will be read with avidity by all who have come in contact with the leading surgeons of New York: it supplies precisely that kind of information concerning their preceptors which students like to possess. Only one criticism;—a little less of euphuistic "sweetness, long drawn out," would have been more agreeable.

Asiatic Cholera. By F. A. BURRALL, M. D. New York: Wm. Wood & Co., 61 Walker street. 1866.

This little volume will be read with interest by all who desire a clear idea of the history of Cholera. It serves as a panorama by which is displayed all that is really worthy to be preserved from the mass of literature that has grown out of the subject. Having no theory of his own, the author has written in a dispassionate manner, and is content to display only the samples of other men's wares, from which all comers are at liberty to satisfy themselves.

Ticknor and Fields, of Boston, have again laid us under obligations by forwarding to our sanctum their publications for July. The first chapter of Agassiz's forthcoming "Physical History of the Valley of the Amazon" appears in this number of the *Atlantic Monthly*. *Our Young Folks* and *Every Sat-Saturday* are enriched by their usual entertaining miscellany.

This is the species of literature which the late Prof. Chandler Gilman, of blessed memory, was accustomed to recommend to his pupils as appropriate reading for the obstetrical bedside. Certainly, nothing can be imagined better fitted to beguile the tedious hours which so often fall to the lot of the physician.

At a recent meeting of the Chicago Medical Society, the members were favored with an exhibition of samples of the different varieties of California wine, introduced by Messrs. Perkins & Stern, of New York. We have always believed in the success of the vineyards of California, and it is now certain that from our Pacific coast are brought wines which are superior to any European wines that can be procured in our market. When we reflect that the medicinal virtues of wine do not merely consist in the fact that the beverage supplies to the patient an agreeable form of dilute alcohol, but rather in the fact that the pure fermented juice of the grape is a complex fluid whose properties are specific, and in their action upon the system analogous to the natural mineral waters, it is easy to see a reason why for the sick room we should prefer an article which, like the California wine, is the genuine product of the vineyard, to the fictitious beverages which are ordinarily sold under the names of port, sherry and champagne. Messrs. Perkins & Stern are the pioneers in the work of introducing the vintage of California to the Atlantic States; and the reputation which they have established, is a sufficient guarantee for the quality of their stock. To the wholesale druggists of this city, they are now furnishing the following wines: port, claret, hock, muscatel and angelica. The port wine is in color and flavor very similar to its European prototype. It contains four per cent. of grape sugar, and 16.5 per cent. of alcohol. In this last particular, it

differs greatly from the imported article which, as received from Europe, is always largely reinforced with brandy. The hock is a light, dry wine, free from sugar, and forms, in common with the claret, a very refreshing article for the use of invalids during convalescence from malarial fevers, or in warm weather. The angelica contains fifteen per cent. of alcohol with sixteen per cent. of grape sugar. This constitutes a very nutritious drink, admirably adapted to cases which require the presence of a sugar more assimilable than cane sugar. The muscatel is almost a syrup, containing about six per cent. more sugar than is found in the angelica. One would suppose this wine might be used as an agreeable vehicle for the solution of various drugs.

These wines have been submitted to the most searching tests by the highest medical authorities of the U. S. Army, and have always given perfect satisfaction. We believe that they will soon be used by the whole body of the profession to the utter exclusion of every form of imported wine; and we hope the same may become true of the public at large, for where wine is moderate in price, drunkenness seldom prevails.

With the present issue we complete the report of the proceedings of the American Medical Association. For these very full and interesting notes, we are under obligations, many and lasting, to our friends of the *Medical Record.* And by the way, if any of our readers desire to enlarge the circle of their medical reading, they cannot do better than by subscribing for this new semi-weekly serial. For the minutes of the meetings of the Iowa State Medical Society and the Illinois State Medical Association, we are indebted to their Secretaries respectively. We have received full and interesting reports of the annual meetings of many of the County Medical Societies, which have been crowded out for want of space on our pages. It is gratifying to remark the enthusiasm with which the profession has resumed the appropriate arts of peace; and in no quarter are these manifestations more satisfactory than in the Southern States. In addition to the Journals published at Richmond, Savannah, Atlanta and Memphis, which we have already noticed, we can now welcome the "Southern Journal of the

Medical Sciences," published in New Orleans by an association of physicians, at the head of whom stood the late Dr. E. D. Fenner, whose death occurred in April, almost simultaneously with the appearance of the new journal to whose establishment he had so largely contributed. The *New Orleans Medical Record* is a semi-monthly devoted to medical science, under the editorial care of the celebrated Dr. Bennet Dowler. These new journals are excellent, and promise well for the progress of true medical science in that semi-tropical zone upon the shores of the Mexican Gulf.

As the season of vile odors and foul miasms is opening upon us with a dark cloud of cholera glooming in the horizon, the question of disinfectants assumes more than ordinary interest. We notice in the daily papers a circular from Dr. S. C. Blake, tne city physician, recommending the use of chloride of zinc for the purification of basements, vaults and sick rooms. In this he agrees with the distinguished chemist, Prof. Blaney, of Rush Medical College, who, in a recent letter to Mr. E. H. Sargent, the manufacturer, writes as follows: "There is abundant scientific authority—with which my own experience accords—to prove beyond doubt the immense value of this agent as a deodorizer, and, in a high degree, as a disinfectant. While it is equally as prompt and efficient as chloride of lime, the best known and the longest used of the deodorizers, it has over it the great advantage that it has no offensive odor of its own, when neutral, and may be freely used about the persons and clothing of the most sensitive persons without exciting any feeling of disgust. As a deodorizer, for use in closed apartments, and within dwellings for general family use, I am of the opinion that the chloride of zinc is the most SAFE, the most PROMPT, and the most EFFICIENT of the deodorizers now furnished for general distribution."

Special attention is requested to the advertisement of the Prize Committee of the Indiana State Medical Society, which will be found in our advertising sheet.

THE

CHICAGO MEDICAL JOURNAL.

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ORIGINAL CONTRIBUTIONS.

The Trichina Spiralis. A Family Poisoned by Eating Trichinous Pork. By E. M. SMITH, M. D., of Marion, Linn County, Iowa.

In view of the great excitement existing at the present time, in Central Iowa, respecting the prevalence of the disease called Trichiniasis, caused by eating raw trichinous pork, I have determined to prepare a correct report of the cases which have given rise to so much interest and inquiry. That the malady exists in this section of the country, is no longer a matter of doubt.

So long as the disease was distant from us, and our principal knowledge of it consisted of unauthenticated newspaper gleanings, and occasionally a brief notice of the subject by the medical journals, we were content to almost ignore the very existence of the trichinal disease, or, at least, to more than half believe that the disease was rather a speculative theory than a practical matter to be encountered by the profession.

On the morning of May 11th, 1866, I was requested to call at the residence of a Mr. Bemis, the messenger remarking that "they were all sick and didn't know what was the matter." The family occupied a comfortable suit of rooms on the second floor over a clothing store, in a sufficiently ventilated building,

which is evidently as healthy as most dwellings. I am thus particular as to the rooms, that there may be no false conjecture of oclesis or crowd-poison in the case. The family numbered ten persons: Mr. Bemis, aged 72; Mrs. B., aged 57; two unmarried sons—Henry, aged 23, and Whitfield, aged 20; a son-in-law, Mr. Lansing, with his wife and four children, aged, respectively, 13, 9 and 6, the last being twins. I called as requested, and found six persons lying ill: Mr. B., his wife and son, Henry B., together with three of Mr. Lansing's children—Willie, Ella and Albert. I learned that all six had been taken sick at about the same time, a week previous to my call. The prominent symptoms observable at the time were: more or less diarrhœa; tenderness of the abdomen; tongue thickly coated, contracted and red about the edges; œdema of the face in several of the cases; considerable pneumonic irritation in some; fever of a typhoid character; pulse ranging from 100 to 120 per minute; great thirst and profuse sweating; complaint of soreness and stiffness of the muscles, a difficulty of extending the limbs, wakefulness at night, and excessive exhaustion. Each case exhibited more or less of the symptoms just enumerated, the difference being merely in intensity.

It seemed to me something remarkable that so many persons should all be taken ill at about the same time, in the same family, and with the same general range of symptoms, while no sickness of like character was prevailing in the community. Making a careful examination of each patient, I informed the family that I was fearful that it would prove to be the trichinal disease; still I was not positive, never having before seen a case; and further, having made diligent inquiry in regard to the previous diet of the family, I could elicit no facts which would lead me to believe that any raw pork or other meat even had been eaten. But I was not satisfied, and so concluded to watch my patients awhile before giving a positive diagnosis, and to prescribe such palliative remedies as were indicated, my opinion being divided between trichiniasis and typhoid fever.

On the 14th of May, three other members of the family (Whitfield B., Mrs. Lansing and her youngest daughter) began to complain of like symptoms with the first six; and so im-

pressed was I with the idea of trichiniasis, that I ordered each an active cathartic. They and one other case have recovered.

The œdematous condition of the face disappeared about the fourth or fifth day after its appearance, and immediately swelling of the ankle joints, with some soreness, supervened; while two of the cases showed decided anasarca of the lower extremities, which continued until death. During the second week of my attendance but very little change was observable in a majority of the cases, excepting that three of the milder cases began to convalesce, and a gradual increase of the pneumonic difficulty occurred in Mrs. B. and Henry B. In the latter case it became so severe as to require active treatment for several days; respirations, 48 per minute, with copious brick-dust colored expectoration. I believe that in this case the pneumonic affection was much aggravated by sitting in a draft before an open window while perspiring freely. At this time several of the patients were somewhat delirious at night, but had shown little or no indications of coma.

On May 30th, Willie Lansing, seemingly doing well, suddenly grew worse, and in the evening I called in consultation my friends, Drs. Bardwell and Ristine. Nothing new was elicited in respect to the cause of the disease, we still regarding it an aggravated form of typhoid fever, from using impure water, or from other causes, the nature of which we were unable to ascertain. May 31st, Willie was rapidly sinking; the sustaining treatment ordered evidently affording no relief. At 5 o'clock A. M., June 1st, I again visited my patients, and again renewed my former inquiries in regard to the meat eaten in the family previous to the outbreak of the sickness. I here gained the admission from the ladies of the family that, about the last of April, they had obtained a couple of smoked hams, which were eaten; and that, during Mrs. Lansing's absence from home one day, the little boys had carved off portions of the raw meat and eaten plentifully of it, and the little girls ate some at the same time; and further, that Mrs. Bemis had several times sliced up the raw ham for the table, and it had been eaten, and that a small portion, which remained at my first call, had been thrown away. In from five to ten days, all who had eaten were ill.

Here at once was the solution of the whole difficulty, which I had so earnestly sought previously. Plainly, the disease was trichiniasis. Mr. Lansing had eaten of the meat when well cooked, and had escaped. Mrs. Lansing ate of it very rarely cooked, and had a somewhat mild attack.

I immediately sought Drs. Bardwell and Ristine, and communicated to them the facts I had just learned from the family; to us they were now plain cases of trichiniasis, yet the positive proof was wanting. The same day, Willie L. died, and in the evening, assisted by our leading physicians, I made a limited post-mortem examination, and obtained small portions of the rectus femoris and biceps muscles for microscopic examination.

Upon placing minute particles of these muscles under the glass, the parasites were to be seen in great numbers; the veritable *trichina spiralis.* Many of these were very active, and were readily seen to coil and uncoil, and to exhibit an activity commensurate with the terrible work they had done. I counted 26 trichinæ on one field of the glass; and upon placing a piece of the rectus femoris, $\frac{1}{22}$ of an inch in diameter, under the object glass, 104 trichinæ were counted, which would give nearly 200,000 parasites to the cubic inch. On the 3d of June, Henry B. died, severe pneumonitis having supervened, which no doubt hastened his end. No post-mortem was made. June 8th, Albert Lansing died. In his case anasarca and pneumonitis were prominent symptoms. Not examined after death. The elder Mr. Bemis lingered along until the 15th, complaining of much abdominal pain and great soreness and contraction of the muscles of the extremities.

A post-mortem was held, and the cadaver carefully examined. No lesions of a pathological character were found, the appearance of the viscera being nearly or quite normal. Portions of the muscles, from different parts of the body, were removed for microscopic investigation; also, of the liver, spleen and lungs. The voluntary muscles were swarming with trichinæ; some were found in the lungs and spleen, but none in the heart or liver. On the 17th, Mrs. Bemis died, anasarcous, and with marked pneumonic symptoms. For several days previous to her death,

the cough and dyspnœa were so troublesome, while lying down, as to compel her to remain in a half-sitting posture for relief. Her appetite was considerable during the whole course of her sickness, which was not the case with the most of the others. In the treatment I made no experimental efforts, but contented myself with a sustaining course of tonics and alcoholic stimulants, believing that whatever remedies were best calculated to aid nature in her conflict with causes so overwhelming to all the powers of life, were the remedies that common sense and sound medical philosophy indicated. The number of parasites found in the muscles of the bodies examined seems almost incredible, but facts and figures are ugly points to get over, and here amply sustain the statements made. The estimates are fully corroborated by the investigations of very many of the most intelligent and skilful medical gentlemen in Iowa. I also sent a portion of the muscles tested to Dr. E. Ingals, of Rush Medical College, Chicago, and he informs me by letter that the estimates, from careful examinations of the Faculty, correspond very nearly with my own given above. In the last case examined, the number was nearly up to the first; and beside, some encysted worms were found, showing that probably the activity of the parasite begins to subside in from forty to fifty days after the first indications of the malady.

I have now given a concise history of the first authenticated cases of trichiniasis that, to my knowledge, have ever occurred in the western part of the United States. To be sure, none of the trichinous meat eaten was examined, but what is better, the bodies of the victims were scanned, and the parasites were found in multitudes. We farther know that nine persons ate of the raw ham, and in a few days all who had thus eaten, and none others, were taken ill with the same form of disease, differing only in intensity, in proportion to the quantity of raw meat eaten. Five of the nine sufferers have died. The four remaining cases are out of danger, and are regaining their usual state of health.

Diagnosis and Treatment of Pott's Disease of the Spine. By F. O. EARLE, M. D., Chicago, Ill.

It has seemed to me somewhat remarkable that the well-defined symptoms of this disorder, which is so common among all classes of society, so disastrous in its results when neglected, but so amenable to treatment in its earlier stages, should be almost entirely overlooked, as such, by the general practitioner in this age of our profession, when diagnosis is made so prominent a part of a thorough medical education. And for this reason, I have been induced to prepare this paper, hoping thereby to attract the attention of practitioners more forcibly to the importance of an early recognition of this terrible malady, and to urge upon them the necessity for its prompt, thorough and effectual treatment by proper mechanical means.

What, then, are the symptoms by the presence of which we are to be guided to a correct diagnosis in these cases, where an accurate decision is of such vital importance to the future welfare of the patient?

First. Pain,—*not*, as is generally supposed, in the back or along the spine—which is very rarely the seat of tenderness, unless caused by the manipulations of the physician in his vain endeavors to find a sore spot,—but on the anterior portion of the trunk, and generally at the epigastrium, though sometimes at the hypogastrium, and occasionally in the thoracic region, near the costo-sternal articulations, or at the borders of the ribs, being modified somewhat by the point at which the disease is situated. So constant is this symptom, that it may be considered pathognomonic of the disease under contemplation. The pain is rather paroxysmal in character, and is intense and agonizing, often causing the most piercing cries to escape the lips of the sufferer. In some cases it seems to be excited by slight causes, while in other instances it comes on spontaneously. It is sometimes present in the evening, but in other cases is complained of in the morning on rising from bed, or it may only be noticed when the patient is fatigued.

This prominent symptom of a vital disorder is very often mistaken for the whole disease, and the patient is accordingly

treated for worms or inflammation of the bowels, gastritis, or indigestion, until the attention of the medical adviser is fully aroused to the serious nature of the malady which he has been vainly endeavoring to combat with inert remedies, by the actual appearance and rapid increase of the hideous deformity which, sooner or later, results from ulcerative inflammation of the spine.

Second. A peculiar and characteristic attitude and gait, which is adopted for the purpose of avoiding as much as possible all shocks and concussion to the spine. The head is thrown backward as well as the shoulders, which are also slightly elevated; the elbows, hips and knees are flexed, and the toes are generally turned in. The patient steps very carefully, often resting one hand (generally the left) upon the knee, and when standing, will lean upon a chair or table, or his mother's lap, for support. If asked to pick up some object from the floor, he will squat down by the side instead of in front.

In connection with these more prominent signs, we often find great irritability of temper and nervous excitability, appetite extremely capricious or almost entirely lost, tumefaction of the abdomen, general debility and indisposition, and the gradual development of a cachectic condition.

If the disease be situated in the dorsal region, the respiration will be short and labored.

If the physician should find one or more of the symptoms which have been enumerated present, but should still be in doubt as to the true nature of the affection, let him view the spinal column from the side, and he will notice a straightening of the spine at some point instead of the normal curve; or, if the disease is a little farther advanced, a bulging outward, with straight lines above and below, converging towards the point where the disease is situated. If he fails in detecting either of these appearances, let him take a full view of the back, and if there is a slight deviation of the spine to one side without any true course, but in its place an angle, and the line of spinous processes above and below converging to that angle as to a focus, he may be sure that mischief is going on at that point.

This lateral *deviation* is likely to be confounded with true lateral *curvature* of the spine, but there is one sure method of settling this doubt, if it should arise in the mind of the physician. If disease of the spine exists, there is generally, in connection with the *apparent* curvature, a very slight projection backward of one spinous process, and by grasping the patient's hips firmly and directing him to stretch the arms straight above the head, and carry the head and trunk forward without flexing the spine, the lateral deviation will disappear, but the projection will still remain visible, showing beyond the possibility of a doubt that the vertebræ at this point are diseased.

But the physician should not wait for the manifestation of these physical signs. It is a well known and generally recognized law—illustrations of which often occur in the practice of every physician—that lesions of nervous centres and main trunks exhibit their earliest manifestations at a distance from the seat of irritation, in the extremities of the nerves which have their origin at this point.

A persistent, severe, paroxysmal pain in the region of the stomach, which resists all ordinary and well known remedies, should immediately attract the attention of the intelligent practitioner, who has a knowledge of the existence of the above-mentioned law, to the spinal column as the focus of this abnormal sensation.

Having satisfied ourselves that progressive ulcerative inflammation of the bodies of the vertebræ or of the intervertebral substance exists, what are the indications for treatment?

Evidently, first, that which has of late years been so successfully adopted in the treatment of that similar affection, morbus coxarius, namely: to relieve the pressure at the point of disease; and, secondly, to sustain the general tone and vigor of the patient's system, by the adoption of such hygienic measures and the administration of such remedies as the nature of the case seems to require.

The last named indication is second not only in order but in importance, for it is a fact founded upon experience, that, if the first indication is promptly and effectually fulfilled, the accomplishment of the second follows as a natural result in the majority

of cases, without any attempt to combat the accompanying constitutional symptoms by general medication.

How, then, may the first, and by far the most important, requirement in these cases be properly answered?

By the introduction of setons and issues, or the application of moxæ and the actual cautery? I cannot deny that some kind of counter-irritation is useful in certain forms of disease, but I do positively maintain that no possible benefit can be derived from the adoption of such measures in the affection under consideration.

Without entering at the present time into an examination of the various theories, which have been held by pathologists of our own and former periods, with regard to the causation of this malady, we must accept the fact that we have a morbid process going on, which is gradually but surely undermining the constitution; disturbing rest and appetite; causing hectic, and producing a hideous deformity. Now, is it reasonable to suppose that we shall be able to control this unhealthy action, with all its accompanying horrors, by the institution of any form of treatment which will cause a still further drain upon the system, which is already taxed almost beyond endurance? It seems to us that mature reflection will disclose the utter uselessness of such measures.

In most surgical works, the recumbent posture, either in the prone or supine position, has been very strongly insisted upon as absolutely necessary in this disease. Neither of the indications are properly fulfilled by this method of treatment, and therefore it is objectionable, except under one condition which is liable to occur, and which will be hereafter mentioned. The prone position does not remove the superincumbent weight from the bodies of the diseased vertebræ, and consequently the deformity is increased rather than diminished; the weight of the trunk is supported on the thorax and abdomen; the play of the ribs, and of the abdominal and thoracic muscles and viscera, is restricted; the thorax becomes flattened, and the digestive, respiratory, and circulatory functions necessarily impeded. This system, with all its lingering horrors, is now happily abandoned, though confinement to the bed in the supine position,

which is only less harmful, is still recommended and adopted by many surgeons, as being the only practicable means of relieving the diseased surfaces from the weight and pressure to which they are constantly subjected, if the body is held erect. But, while the tendency is to produce this effect, it is done at the expense of the general health of the patient, as it materially interferes with those various hygienic measures which are so necessary to subjects of this class. Besides this, the functions of the skin are impeded by the constant pressure to which it is exposed, and organic lesions of the soft parts are induced, while the natural action of the muscles is curtailed, and those organs consequently become weak and atrophied.

Many mechanical arrangements have been devised for the relief of this class of patients, but they have generally been constructed on the same principle, and that a false one, not recognized in mechanics, so that we need not wonder at the want of success which has attended their use. Nearly every instrument coming under my observation, has been made with the one idea of producing counter-extension from the hips to the shoulders, by means of crutches passing from a hip-band and resting under the arm-pits.

There are two insurmountable obstacles in the way of producing any beneficial result by this means:

First, the hips are never broad and full enough to afford a basis of support, and

Second, we can find no fixed point above.

Any force applied under the arm-pits only raises the weight of the arms themselves, while it seriously interferes with the circulation in those extremities, which, in connection with the pressure downward upon the hips, becomes in a short time intolerable.

An apparatus, to be thoroughly effective in cases of this kind, should admit of such freedom of action on the part of the patient as will conduce to his comfort and welfare, while, at the same time, it absolutely protects the diseased portion of the spine from pressure and the shocks to which it is constantly liable.

Such an instrument has been invented by Dr. Charles F.

Taylor, of New York city, and used by him and others with very marked success in the treatment of this disease during the past few years.

This very useful surgical appliance consists of a well-padded hip-band, which passes rather more than half-way around the trunk, midway between the great trochanters and crista ilii. From this, two narrow steel pieces pass up the back on either side of the spine, which are fastened at the top to a double-T-shaped piece of steel, of the same width and thickness as the uprights, to each cross of which is attached a strap which passes over the shoulder and under the arm. The shape of the cross-piece prevents the ligaturing of the arms, which would not only be painful but injurious. Opposite the point of disease are two broad steel plates, which are fastened above and below to the two uprights by means of stop-hinges, which absolutely prevent motion *forward*, but allow the most unrestrained use of the muscles in the *backward* direction, thus bringing the erector-spinæ into action, and so causing their development, and making them a means of sustaining a portion of the weight of the body, and thus assisting in a manner to overcome the curvature. I have seen this effect produced in many cases. Upon these plates are fastened the pads, which press not directly upon the spine but upon either side of it. These are made of canton flannel, and filled with wool or ground cork. The latter is best, as it is quite as soft as wool, and is not so liable to pack and become saturated with perspiration. The shoulder-straps and the strap which passes from either end of the hip-band, should be made of firm—*not* elastic—webbing, and provided with pads to protect the parts from abrasion, and all these should be renewed often to insure cleanliness and efficiency. The strap, which is attached by means of buckles to either end of the hip-band, passes below the abdomen, and to it is sewed a broad bellyband, which passes up in front, and is buckled *loosely* to the uprights by each upper corner. This proves grateful to the patient, as it sustains the pendulous abdomen, and does not interfere with the respiratory, circulatory or digestive functions. Passing through the uprights, above and below the hinges, are little screws which play upon the pad plate, forcing open the

hinges, thus increasing the action of the instrument when desirable.

It is not claimed for this apparatus, neither can it be for any other, that the mere application of it is to do anything towards the cure of so formidable a malady. Any surgical appliance should not only be constructed upon correct mechanical principles, but it is also necessary that it should be carefully fitted to each case, which should be constantly watched and attended, that any indications for treatment which may arise may be promptly answered by corresponding changes in the form and relative bearings of the instrument. And these necessary modifications should be made, in all cases, by the physician or surgeon himself, who is the only proper person to administer any medical or surgical treatment.

The apparatus described above may be modified to suit the requirements of any case, in whatever portion of the spinal column the disease may be situated.

If this should be in the cervical region, the instrument requires the addition of a piece of steel, bent so as to receive the occiput, and attached to the cross-piece by means of a pivot. From either end of this head-piece, which is well padded, a properly-made strap passes under the chin, and thus the head, which would otherwise fall forward until it rested upon the chest, is effectually supported. The pads in this case must, of course, be moved higher up.

If there should be much anterior curvature (incurvation or lordosis) below the point of disease, which may often occur, it is necessary still farther to modify the apparatus, by having but one hinge, and that directly opposite the point of disease. Other changes in the form and bearing of the instrument, which will be obvious to the intelligent practitioner, can easily be made.

Now, let us see how this appliance acts in overcoming the serious difficulties which we meet in the treatment of this disease. The action at the hips and shoulders is evidently directly backward, while at the point of disease it is directly forward. All the points of attachment being unyielding, no force is lost, but it is all exerted in a direction tending to straighten the

spine, and to relieve the pressure at the point of disease, which, we have seen, is *the* indication in all these cases.

I have entered at some length into the description of this mode of treatment of this affection, because I have had the opportunity, during the past two years, of comparing it with other methods, and am fully convinced that it is the best that can be adopted. It cannot be said that it is empirical or routine in character, for the apparatus described can easily, and certainly should, be modified to answer the peculiar requirements of every case.

Gymnastic exercises have been recommended by some surgeons in the treatment of this deformity. I will merely say, that experience has proved that they are not only useless but positively harmful, either alone or in conjunction with mechanical treatment, in that form of curvature resulting from spinal *disease*. In lateral curvature, depending upon unequal muscular action, debility, etc., localized exercises may effect the happiest results.

During the progress of Pott's Disease, certain consecutive symptoms are liable to occur, which deserve special mention.

First. Paralysis of the lower extremities, resulting, I believe, excepting in very rare instances, from inflammation extending to the membranes of the spinal cord, and sometimes even to the cord itself. That it is not the result of mechanical pressure exerted upon the cord is evident from the fact, that it is scarcely ever observed in advanced cases after ankylosis has taken place, but in recent cases is quite common, and may be the first premonitory sign of the approach of this disease.

Post-mortem examinations reveal the fact, that however extensive the destruction of vertebræ and the resulting deformity may be, the spinal canal is scarcely encroached upon; the canal and foramina giving exit to the spinal nerves being considerably larger than the size of the organs passing through them require; so that I can see but one cause for the paralysis being permanent—which is *very* rarely the case, though it does sometimes occur—and that is, pressure upon the medulla spinalis by an exostosis. An opportunity of testing the truth of this theory has never occurred. A favorable prognosis may always be

given in this form of paralysis. But, though not dangerous, it is liable to recur. Local treatment will scarcely ever be found necessary, perfect rest in bed averting the attack when threatened, or relieving the symptom when present. Paralysis of the upper extremities may occur when the cervical vertebræ are affected.

Second. Malformation of the thorax by the elevation of the ribs and sternum, thereby increasing the width but diminishing the length of that cavity. The intelligent mind will recognize in this change a wise provision of nature, to allow space in which the heart and lungs may perform their respective functions, unimpeded by any mechanical restraint. This apparent deformity will disappear as the posterior curvature is relieved.

Third. Cold abscesses. These may show themselves in the lumbar, iliac, or inguinal regions. When occurring in the last-named situation, they are preceded or accompanied by contractions of the psoas and iliacus internus muscles, and if these contractions are promptly relieved—which may be done, in all cases, by increasing the sustaining force of any apparatus worn by the patient—their formation may be prevented, and the pursuance of the same course will, in some cases, cause the absorption of the matter when abscess has already formed. In whatever situation these abscesses appear, if their absorption cannot be promoted, they should be properly opened at once. If allowed to open themselves, or if the operation be improperly performed, an extensive secreting surface is laid open which will discharge for a long time, seriously impeding the progress of the patient towards recovery. To avoid this result, the abscess should be opened early, and not in its most dependent part, but at the top of the tumor. I mean its top in relation to the axis of the trunk. The operation should be performed with a small trochar, and after the pus is discharged, the tube should be cautiously withdrawn, care being taken to prevent the introduction of air, and a small compress placed over the opening, and fastened down firmly by strips of adhesive plaster applied over the surface in various directions. If the sac thus evacuated fills again, as it sometimes does, it will not be so

large as formerly, and the same process must be repeated until its final disappearance.

Any general constitutional disturbances which may occur during the progress of the disease, must be treated as in other cases.

Epidemic Cholera: Its Pathology and Treatment. By R. DEXTER, M. D., of Chicago, Ill.

If we carefully trace the gradual digression from a truly physiological action through the entire changes of its pathological course, in a typical case of cholera, we shall find about the following order of events:

1. Slight derangement of the alimentary canal, muscular languor and tremulousness, restlessness and headache.

2. An enhanced condition of the preceding phenomena, with abdominal uneasiness, perhaps actual vomiting and purging, tongue coated, cramping in distal and peripheral parts, arrest of secretion of urine, with coldness of surface.

3. Active vomiting, purging of the characteristic rice-water dejection, respiration labored and abridged, excessive and painful cramping of both body and extremities, great coldness of surface, and the pulse variable.

4. Dyspnœa very great, peripheral circulation nearly suspended, venous congestion, labored cardiac action, skin livid, cold and bathed in perspiration, great precordial pain and coldness of respired air.

5. Low, irritative fever, with an irritated and congested condition of one or more vital organs.

Many prominent men claim that the specific action of the poison is upon the capillary circulation, some say pulmonary, others general; to this I must in part disagree. That the capillary system is affected, is unquestionably correct; but it seems to me that there is as much evidence to confirm an opinion that its primary action is upon the nervous, glandular or cellular systems, or that it acts through the blood upon any other system, as upon capillaries alone. Now my belief is, that as soon as any poison has entered the blood, it acts upon

its composition and changes its constituent elements; that it changes the constituent elements of the cells and their contents; that this modifies *absorption* and *secretion*, and thus alters *assimilation* and *excretion*. I also believe that each known hæmatic poison has not only some individual peculiarities but many properties in common with other poisons; and that any morbific agent taken into the blood must be eliminated by some of the emunctories. Some of these have a specific tendency to escape through one eliminating channel rather than through others; and that when one or more of the excretory organs are dormant, a compensating action is established, by which the others eliminate whatever the disabled organs fail to remove.

These principles are as well illustrated and as well settled, in respect of the elimination of poisons, as they are in the more ordinary every-day work of excretion.

I will here cite the action of antimony, and compare it with that of the cholera poison, assuming that they are both taken into the blood slowly, so that the antimony is received into the blood about as cholera poison usually is. Their similar actions are prostration, irritation of the alimentary canal, impaired function of the pneumogastric nerve and other organic nerves, impoverishment of the blood, lowering of animal heat, excessive vomiting and purging, and cold, clammy perspiration.

Bichloride of mercury, in medicinal doses, acts as a laxative, cathartic, eccritic and catalytic hæmatic. It is eliminated by the bowels, liver, kidneys, salivary glands, etc. In poisonous doses, it is a violent irritant and caustic, creating vomiting and purging by its caustic properties.

That there is in cholera an early arrest of functional and capillary action, and consequent elimination, is proved by the following conditions:

1. An arrest of secretion, viz., urine and bile.
2. A gradual subsidence of animal heat.
3. An imperfect æration of blood.
4. Undue fulness of larger vessels.

For a further confirmation of the preceding principles, the reader is referred to Dr. F. W. Headland's work on the action

of medicines. Judging from the above facts, it seems to me that the indications for treatment are as patent as are the principles of medicine. They are to restore the action of the emunctories, by recalling to the surface the receding capillary circulation. This is to be done by allaying nervous irritation, by artificially restoring animal heat, and by the administration of eliminating medicines. Nervous irritation is probably best allayed by opium, in regular and sustained stimulant doses, until capillary action is provoked. Perhaps the preferable preparations are the tincture and camph. tincture of opium, (if the discharges are excessive,) with acetate of lead and acetate of morphine injections. Probably the best way to restore the animal heat is to completely envelope the patient (except his face) in wet blankets, as hot as can be tolerated.

This combined action will generally suffice to restore normal circulation and elimination; if not, we can resort to the use of the true eliminating medicines.

My selection is usually a mercurial, because it, *per se*, has the very effect we should produce,—cathartic, catalytic and eliminative. But no definite rule can be established as to medicines, as each prescription must be modified by the present and previous conditions of the patient.

Here, perhaps, I should state, that I administer the cathartic as soon as excessive action is checked, and give such other eliminatives as I deem the case requires.

But if the disease has advanced to desperate vomiting, purging and cramping, we should employ our revulsive measures with great activity, allowing ice and cold water internally, with sinapisms to the epigastrium and precordia.

But in a state of collapse, where the watery portion of the blood has been drained away by the excessive evacuations, and where prostration marks every organ of the body, it is my opinion that little can be done except by supplying such nourishment as requires but little digestion, and will serve to sustain vital and recuperative action,—beef essence, fresh milk, coffee or tea, and chicken broth, etc. Chloroform, I think, is contra-indicated by a highly-carbonized condition of the blood, by an

already embarrassed condition of the organic nerves, and by an oppressed condition of the heart and lungs.

Perhaps I ought here to mention some of my reasons for considering the rice-water dejections the result of pressure. The abdominal veins are congested, and with such congestion we always have an aqueous exudation. Anatomically, this is the most copiously exuding surface in the body. Hydrogogue cathartics are probably exuded into the lower portion of the intestines as a result of congestion. Nervous shocks, as fear, cold and the like, produce such action, especially when the kidneys are inactive, as seems to be the case in cholera.

A Case of Dry Gangrene of the Leg, caused by Obstruction of the Common Femoral Artery—Amputation at the Middle Third of the Thigh—Recovery. By J. W. FREER, M. D., Prof. of Phys. and Surg. Anat., Rush Med. College.

Mr. B——, aged about 55, a robust farmer, received a kick in the groin from an unshod horse, on the 22d of April, 1866. At the time he did not consider himself seriously injured. The following quotation from a letter, written by the attending physician—Dr. Jas. B. Hawks, of Dunton, Ill.—sets forth very plainly the subsequent symptoms and results of the injury: "The foot commenced being cold the same day of the injury, and on the third day some blueish lines were observable. These gradually increased until the end of a week, when the toes had become gangrenous. Up to the third day I could detect feeble circulation in the femoral artery. At the seat of injury he did not complain of pain, and there was very little soreness. There was great difficulty in passing urine from the first to the present time—requiring the use of the catheter. The first three or four days, he could get out and in bed without assistance, and could bear his weight on the injured limb. The condition of things grew gradually worse until the time you were called."

At this time—the 9th of May—the leg was gangrenous to within about four inches of the knee. The tissues were more completely desiccated than I had ever before observed in similar

cases. The general condition of the patient was very good. No symptoms of septæmia—no marked depression of the vital forces. Under these favorable circumstances, after consultation with Drs. Hawks and Hoffman, immediate amputation was considered advisable. The result was good, the stump having healed quickly and kindly.

Remarks.—The prominent question in this case is respecting the nature of the lesion which caused the obstruction of the femoral artery. There was no evidence of valvular disease of the heart, therefore Virchow's doctrine of disengaged fibrinous concretions floating here and there until finally arrested, as in "embolia," does not apply in this case. One can hardly conceive that a healthy artery could have been injured by a blow so slight as not to cause ecchymosis of the skin, or any apparent lesion of the soft parts; therefore, I am led to adopt the view of a condition of degeneration of the arterial walls at this point, serving to make the vessel friable, and that, in consequence, there was rupture of the internal coats, causing sufficient roughness to induce the formation of a coagulum. I have since been informed that the circulation has been re-established in the injured artery.

Mr. Rose, in the London *Lancet*, 1864, p. 60, mentions a case of embolism of the popliteal artery, following a long and fatiguing walk, which resulted in gangrene—but there was post-mortem evidence of fibrinous vegetations on the mitral valves of the heart.

There are two other cases mentioned in the *Lancet*, vol. 2, p. 228, of embolism of the femoral artery, but in each case there was heart disease with fibrous concretions on the valves.

From the length of time before complete occlusion of the vessel, (three days,) it would seem that the clot or fibrinous mass was not perfectly formed until the expiration of that time; and now that the circulation is re-established, it must have been either removed to some other part, or liquefaction must have taken place, and the dissolved particles carried into the general circulation. The latter is rather improbable.

Surgical Cases. By GEO. K. AMERMAN, Attending Surgeon to Cook County Hospital, Chicago.

CASE I. DOUBLE AMPUTATION FOR RAILROAD INJURY—PATIENT SITTING UP ON THE SEVENTEENTH DAY—DISCHARGED CURED ON THE FORTY-SECOND DAY.

On Friday, April 13th, 1866, Mr. H., a drover of this city, was accidentally run over by the cars. He was immediately carried to his hotel, and I saw him in less than an hour after the accident occurred. He was a large muscular man, 37 years old, of perfectly temperate habits, and had never been sick enough to require a physician in his life. The injury was entirely confined to his feet and legs. The left foot, ankle and lower third of the leg were crushed into one mass. The right ankle and lower third of the right leg were in the same condition. The right foot uninjured. There was scarcely any hemorrhage, and only a very moderate shock to the nervous system.

From the nature and extent of the injury, it was impossible to save either limb, and although double primary amputation gave very little hope of recovery, it being the patient's only chance, he readily assented to have the operation performed.

After a delay of about three hours, arranging preliminaries and waiting for reaction, the patient was fully etherized by Dr. Hutchinson, House Physician to Cook County Hospital, and with the assistance of Drs. Bingham and Marguerat, of this city, both legs were amputated by the double-flap method, about three inches below the knee-joint. Very little blood, not over four ounces, was lost during both operations. Simple dressings —sutures, a compress and roller—were applied, and the stumps so arranged on a pillow, that cold water could be showered over them without soiling the bed. Ordered morphia, sufficient to procure rest, and cold water to be applied when the parts became hot and painful.

April 14th. Patient has been quite comfortable since the operation. Slept some last night. Has very little pain. Pulse 108. Continue anodyne and cold water dressings.

April 18th. Not a single unfavorable symptom from the first. Pulse 106. Reapplied dressings for the first time. Both

stumps looking well and partly united by adhesion. Discontinue cold water dressings, anodyne as usual.

May 1st. Seventeenth day. Found the patient sitting up, and says he feels as well as ever. Pulse 96. Appetite good, bowels regular, and sleeps well at night.

No treatment, except to dress the limbs every second day. Only a part of either wound healed by first intention. The remainder is granulating finely.

May 25th. Forty-second day after the operation. Patient entirely well and attending to business.

Remarks.—The favorable termination in the above case renders it one of very great interest. Such a result was wholly unexpected, and so far as my own experience and knowledge on this subject extend, it is the only successful case of double primary amputation for railroad injury on record. Several years ago, I performed the same operation under similar circumstances, but the patient only survived twenty-four hours.

This unexpected result depended mainly upon the condition of the patient at the time of the operation and his previous habits. He was 37 years old, and had never been sick a day in his life—was perfectly temperate, never drank a glass of liquor, and very rarely a cup of coffee or tea, and all his habits of life were regular and favorable to perfect health. All this exerted a powerful, and no doubt the chief, influence in his recovery, but it also depended in some degree, we believe, upon the operation and subsequent treatment. In our own mind, three circumstances attending the operation contributed to its success. First—waiting until reaction was fully established. This we conceive to be of the very first importance, and too often overlooked in our anxiety to relieve our patient and get rid of mangled and unsightly parts. Second—the small amount of blood lost during the operation. This, too, is all important, and should be carefully attended to in every case. Take time to apply the tourniquet accurately and effectually, first elevating the limb that the venous blood may empty into the large abdominal trunks, and every ounce of blood saved will help your patient in his recovery. And lastly—the removal of all muscular and tendinous tissue from the flaps, forming them entirely

of skin and subcutaneous cellular tissue. This procedure greatly diminishes the subsequent suppuration and perhaps the twitchings and unpleasant motions of the stump. A matter like this seems of very trivial importance, and yet it is by attending to the "little things" that we shall achieve our greatest success.

In the subsequent treatment, two circumstances contributed to the successful result. First—an abundance of fresh air. The room was kept open, and a current of air passed through it day and night. And second—opiates sufficient to relieve pain and procure rest. Whenever the patient began to complain of pain, and became restless and uneasy, opium was given at once, and enough to make him quiet. It seemed to have a most beneficial effect and contributed greatly to his recovery.

CASE II. EXCISIONS OF THE SHAFT OF THE HUMERUS—DELIRIUM TREMENS—RECOVERY WITH A USEFUL ARM.

On Sunday, August 13, 1865, Mr. H., a large healthy German, was shot in a row. The ball entered the left arm at about its middle, anteriorly, and passing through the humerus, made its exit directly opposite, posteriorly. The soft parts were immensely swollen when I saw him the day after the injury, and presented a dark livid appearance. The humerus was extensively fractured and comminuted. The vessels and nerves apparently uninjured.

The age of the patient, his general good health, and the apparent safety of the vessels and nerves, decided the operation of excision in preference to amputation, and with the assistance of Drs. Bogue and Smith, of the Hospital staff, the patient was anæsthetised, and about four inches of the middle of the shaft of the humerus, together with all loose fragments, were removed. The wound was closed with interrupted sutures, the arm laid on a pillow, temporarily, and cold water dressings constantly applied.

August 15. Patient restless and unable to sleep—thirst—no appetite. Pulse 120. Arm looking well, but immensely swollen. Began to fear delirium tremens, as the patient had been on a spree for the last three weeks, and at once ordered opium in large doses.

10 P. M. Patient perfectly uncontrolable, removing every

particle of dressing from the arm, getting up and swinging it over his head, declaring there is nothing the matter with him. The symptoms were all decidedly unfavorable. Pulse feeble and too rapid to count. Countenance haggard and sallow. Ordered opium, grs. iij. every hour, given in lager beer to get it down.

August 16, 8 A. M. Patient sleeping quietly and sweating profusely. Pulse 110. Placed the arm in an angular splint and reapplied cold water dressings. Ordered nourishment and quinine.

August 22. Doing well. Appetite good. Pulse 90. Sleeps well, and every symptom favorable. Wound granulating and closing nicely.

September 2. A small piece of bone came away with the discharges this morning.

October 16. Wound entirely healed, and considerable formation of new bone. From this time onward, the case progressed without an unfavorable symptom. The arm became stronger, daily, and about the first of November, three months after the operation, all dressings were removed, and the patient advised to begin its moderate use.

June 1st, 1866. Patient able to attend to business, and has very good use of the arm. The result was not quite as favorable as anticipated, on account of a second row he indulged in —refracturing the bone soon after the union became firm.

Remarks.—The interesting feature connected with the above case, is the favorable result, notwithstanding all the untoward circumstances attending the after treatment. The operation of excision in the continuity of the long bones of the extremities, is still of rather doubtful expediency; and every case, whether successful or not, will be important to aid in deciding between excision and amputation.

In the Reports of the Surgeon General of the U. S. A., the total number of cases of excision of the shaft of the humerus was 261, of which 42 died, 133 recovered, 7 were subsequently amputated, and in 79 the result was undetermined. The Surgeon General remarks, that "after excisions of portions of the shaft of the humerus for gunshot fractures, a number of patients have certainly obtained very useful limbs. But the mortality

after the operation is three per cent. greater than after amputations of the arm. The 52 preparations at the Army Medical Museum, illustrating this resection, indicate the frequency with which it is followed by secondary amputation or a fatal result."

HOSPITAL REPORTS.

Cook County Hospital Surgical Clinics. By R.G. Bogue, M.D., Attending Surgeon to the Hospital.

CASE I. FROST-BITE OF THE EXTREMITIES—AMPUTATION OF THE HAND AND THE FOOT—RECOVERY.

February 10th, 1866.

Gentlemen,—The case we show you to-day is one of gangrene of the foot and hand resulting from frost-bite. The House Surgeon, Dr. Quales, will read his notes of the case:

Edward McGeary, aged 26, late from the army, where he lost his right leg, was admitted January 20th, 1866. On the morning of admission, he was found in an alley, insensible, stiffened from cold, having been exposed probably during the greater part of the night.

When admitted, he was insensible. His jaws were firmly set. Right thigh off, about four inches above the knee. Left foot and both hands rigidly frozen. Respiration 12 per minute. Pulse imperceptible. Heart's action very feeble.

Treatment.—The frozen extremities were placed in cold water. Friction was applied steadily. Brandy was administered internally, with some difficulty, however, on account of his teeth being firmly clenched. As soon as the frozen limbs were thawed, he was removed to a warm room. Dry friction was applied continually to the whole body; stimulants were administered internally. After a lapse of about three hours, during which time friction and warmth were constantly applied, he evinced signs of returning consciousness. He finally recovered so as to articulate coherently. The frozen extremities were now enveloped in cotton, and were covered with oiled silk. Milk-punch and beef-tea.

Progress of the Case.—Jan. 21. Very restless during the night; suffers intense pain; pulse 100 per minute; feeble respiration, 20 per minute; stomach very irritable; ejected even small quantities of cold water. Ordered to take morph. sulph.

gr. ¼ every four hours. Milk-punch, ℥i. every two hours, also beef-tea.

Jan. 22. Vomiting ceased. Rested pretty well during the night. No appetite; complains of great pain. Ordered quin. sulph. gr. i., pulv. opii, gr. ½, every four hours. Continue milk-punch and beef-tea.

Jan. 26. Frozen parts commenced sloughing. A poultice was substituted for the previous dressing. Ordered to take quin. sulph. grs. ii. and tinct. ferri chlorid. gtt. x. thrice daily. Bowels not having moved for two days, he was ordered to take ol. ricini, ℥ss. at bedtime.

Feb. 3. Line of demarkation very distinct. On the left hand, the sloughing involves all the fingers extending on the palmar surface as high as a line corresponding with the junction of the lower and middle third of the metatarsal bones; posteriorly, it involves the whole of the dorsum as far as the carpal articulation. On the right hand there is no sloughing, only superficial abrasions over the finger-joints and around the nails. There is considerable numbness, however, and very limited flexor and extensory power. On the foot, the sloughing involves the toes and the tissues as far as the lower half of the metatarsal bones.

The effect of excessive cold applied to a part, is to impair or destroy its vitality. Where the degee of cold is not too great, the vitality is impaired; the part is debilitated; a state of chronic congestion is established, so that the limb is affected by even a moderate degree of cold; leaving it in the condition of pernio or chilblain. In cases where the cold has been more severe, superficial sloughing is the result, producing ulcers which are slow to heal. Again, the cold may be so severe, and may be applied for so long a time, that all the tissues are destroyed, and extensive sloughing follows. The amount of sloughing often depends upon the mode of treatment adopted. If reaction is very gradual, many of the evil consequences may be avoided; but if it is allowed to progress rapidly, inflammation will be excessive, and the sloughing will be extensive, involving, as in this case, nearly the whole hand or foot, or even an entire limb.

The parts most liable to frost-bite are the parts most distant from the centre of circulation, viz., the toes and feet, fingers and hands, the ears and the nose.

At first, while the part is frozen and stiff, snow, or water made cold by the addition of snow or ice, should be applied to retard reaction. When reaction is established, simple, cool anodyne dressings should be used—cool water, with tr. opii, ℥j. to the pint. After a few days, if the danger of sloughing is past, moderately stimulating applications may be employed; *e. g.*, tr. iodini, ℥j., aquæ, ℥iv. — on an aqueous solution of iodine and iodide of potassium—grs. ij. or iij. of the former and grs. x. of the latter to the ℥ of water. Either of these may be painted on the part two or three times a day until it has recovered. When the effect of the cold is more profound, and there is to be sloughing, it is better to apply a poultice to favor the recuperation of the dead tissues. These applications may be rendered antiseptic by the addition of yeast or pulverized charcoal or the liquor sodæ chlorinatæ. Their use must be continued until a line of demarkation separates the gangrenous portion from the healthy. The proper time for amputation has then arrived.

This patient has already lost one limb above the knee, from a gunshot injury, therefore it is desirable to save for him a part of the remaining foot if possible. If the state of the tissues allowed, we would leave him the stump of Chopart's amputation. Syme's amputation through the ankle-joint is inadmissable, on account of the slough upon the heel. We must go above the ankle. The condition of the hand is such, that it will be necessary to remove the whole member.

[After the administration of ether, the hand was removed by a cut through the lower third of the forearm, making anterior and posterior flaps. On examination of the foot, pus was found burrowing along the sheaths of the tendons and under the plantar fascia to such an extent, that a proper flap could not be made for Chopart's operation. Lenoir's operation was performed above the ankle, making anterior and posterior flaps, and removing the malleoli, with the articulating surface of the tibia, about the same as in Syme's operation at the ankle-joint. The arteries in both stumps were ligated; the flaps were adjusted with interrupted sutures, and cold water dressings applied. Reaction occurred favorably, and the patient made

a perfect recovery, the stumps healing by granulation, and being cicatrized, March 20th.]

CASE II. FROST-BITE OF BOTH FEET—DOUBLE AMPUTATION—OSTEO-MYELITIS—DEATH.

March 23d, 1866.

After the House Surgeon has related the history of the footless cadaver before you, we will examine the condition of the stumps of the limbs upon which you saw me operate three weeks ago, and I will contrast the case with the subject of our previous operation.

John Galvia, aged 28, admitted February 21st, 1866, states that about five years ago he received a gunshot wound in the right hip, causing him considerable injury; but, after suffering for eight months, he recovered with but little shortening of the limb. Two years subsequently he was run over by a wagon, injuring the same limb and producing compound fracture of its femur; but, with careful treatment, at the expiration of ten months, he again recovered with the loss of several pieces of the bone and with eight inches shortening. He also states that four days previous to admission, while coming from the country to the city, he froze his feet.

Symptoms on Admission.—Physical powers somewhat depressed by recent dissipation and exposure. Right leg eight and a half inches shorter than the left. Both feet recently frozen; inflamed and swollen. Pulse, 95 per minute. Appetite good.

Treatment.—Cold water dressings to the feet, with an anodyne at night.

Progress of the Case.—February 25th. Inflammation somewhat subsided. Ordered warm poultices to the feet, and quin. sulph. ℈i. ss., tinct. ferri mur. ʒii., aquæ ʒii. M. S. Give ʒii. three times per diem.

March 1st, 1866. Line of demarkation fully defined: on the left foot, at the junction of the lower with the middle third of the metatarsal bones, and on the right, extending on the dorsum of the foot to the tarso-metatarsal joints, including also the heel and plantar surface.

Operation.—March 2d. Dr. R. G. Bogue performed Chopart's operation on the left foot, but on the right limb was compelled to amputate through the tibia and fibula at their lower third.

Progress of the Case.—March 3d. Continue tonics, quiniæ sulph. and tinct. ferri chlor. Anodynes were administered last

night, but failed to induce sleep. Flaps looking well. Ate breakfast with relish.

March 8th. Flaps healed partially by immediate union, with comparatively little suppuration or inflammation, but complains of intense pain to-day in the right leg.

March 12th. Had a rigor during the night. Stumps have nearly ceased suppurating. Pulse weak and accelerated; 105 per minute. Brandy, ℥i. every four hours.

March 15th. Seeming better. Ordered to continue tonics, stimulants and extra diet. Bowels being constipated, gave the following: Extract colocynth. comp., ext. taraxaci, aa. ℈i., ext. hyosciam. grs. x. Misce. F. pil. No. x. S. Give one night and morning.

March 18th. Patient presents every symptom of pyæmia, with occasional delirium. ℞. Sodæ sulphis. grs. v. every four hours, in solution; also, quin. sulph. grs. x., ext. hyosciam. grs. v. M. F. pil. No. x. Give one every four hours, alternated with the soda; also, milk-punch, ℥viii. thrice daily. Continue beef-tea; omit quiniæ and iron.

March 19th. ℞. Quiniæ sulph., ammon. carbon. aa. grs. v. every four hours. Cont. soda and stimulants.

March 21st. Comatose. Involuntary evacuations. The discharge from the stumps is dark-colored and ichorous.

March 22d. Continued perfectly comatose, and succumbed at 6 o'clock P. M.

The body is greatly emaciated, and of a sallow hue. On opening the thorax, the heart is found normal. On the anterior surface of the inferior lobe of the right lung, there are signs of recent inflammation and exudation. There are no abnormal appearances in the stomach or intestines. Both kidneys and the liver exhibit well-marked fatty degeneration.

On laying open the flaps of the right stump, you see incipient caries of the tibia and the fibula; also that protrusion of the medullary membrane and medulla, which is caused by osteomyelitis. In the left stump there is erosion of the anterior surfaces of the os calcis and astragalus; also numerous abscesses and burrowing sinuses within the flap. The margin of the right acetabulum is almost wholly absorbed. The cotyloid cavity is very shallow, and the head of the femur is partially distorted. Pus exists within the capsular ligament, but is probably not of recent deposit.

The condition of the stumps was more favorable in this case than in the case of McGeary. They united by adhesion through the greater portion of their extent. There was but little swelling or soreness until the fifth day, when the patient experienced excessive pain and soreness, with some swelling of the stump of the leg, extending to the knee. This subsided in the course of three or four days, under the use of warm fomentations.

In the first case, about one-third of the posterior flap sloughed, and there was some inflammation of the flaps of the forearm; yet these eventually did well, the patient making a good recovery; while, in the present instance, there was pyæmia with all its fatal consequences.

The occurrence of osteo-myelitis in the second case, may account for the development of the pyæmia. It is certain that its appearance in any case is a very unfavorable omen. Whether this precedes the blood-poisoning or follows it, is not certain:—it occurs early, in some cases, after operation; certainly, before any signs of blood-poisoning show themselves. In this case, it probably commenced when inflammation appeared in the stump. This condition of the ends of the bones and the medullary canal could not be determined at that time—not until a few days before the death of the patient, when the flaps separated at the internal commissure, revealing the necrosed end of the tibia, and the border of the myelitic mass protruding from the medullary cavity of the bone. Before that time, the flaps were united along their whole border.

If this disease is peculiarly favorable to the development of pyæmia, it would be justifiable to modify our operations so as to avoid if possible its occurrence. This may be done by amputating through the joints, or through the ends of the long bones, avoiding the medullary canal. I believe this may be done, in the leg particularly, leaving just as serviceable a stump as by cutting through the shaft, if we perform Lenoir's amputation at the ankle; or, where this cannot be done, by sacrificing the limb near enough to the knee, to avoid the canal of the tibia. In the thigh, wherever it is possible, by cutting through the condyles of the femur, or sufficiently near to avoid its canal.

I believe the frequent occurrence of this disease will eventually influence surgeons in their selection of the point of operation, and will lead them to avoid as far as possible all amputations involving the medullary canal of any of the long bones.

BOSTON CORRESPONDENCE.

THE AMERICAN OPHTHALMOLOGICAL SOCIETY.

Boston, June 19, 1866.

The habits of life, formed during a vacation spent in visiting the friends and scenes of one's early days, are not conducive to mental effort, even to the extent of writing a letter.

My interest, however, in the meetings of the American Ophthalmological Society, which have just been held in this city, and the thought that a short account of them might be acceptable to the readers of the Journal, have induced me to take the pen for the moment.

The opening meeting of the society was held at the Massachusetts Charitable Eye and Ear Infirmary, Tuesday, June 12th. Twenty-two members were present, all specially interested in ophthalmology, from Boston, New York, Philadelphia, Baltimore, Albany, Cincinnati and Chicago.

The Chairman of the society was the venerable Edward Delafield, M. D., who, fifty years ago, commenced with great enthusiasm the study of ophthalmology, and at that early period devoted much of his energies to the establishment of the Charitable Eye Infirmary in New York, now one of the most important charities of the city.

Undoubtedly, the presence of such a chairman enhanced the dignity with which the discussions were conducted. The society has been most fortunate in securing a president so full of wisdom, so aged, and yet so full of vigor and interest for the welfare of the society and the cultivation of ophthalmology in America.

The proceedings will soon be published, when you can select for your readers such articles as may seem of particular interest.

I am confident the annual meetings of this association will directly and indirectly accomplish much good. There will be no small advantage and pleasure enjoyed by each member in becoming personally acquainted with educated men from different cities of the Union, devoted to the study of ophthalmic medicine and surgery.

The interchange of views, and the history of different personal experiences, cannot be without profit. The association must inevitably exert also a good influence upon the medical profession at large — must tend to increase interest in the culture of ophthalmology, and remove the prejudice against professed oculists, even now existing to a certain extent in the profession.

Judging from what I heard at the sessions, at the social gatherings, and in private conversation with individuals, I believe the members, perhaps without exception, are determined by their devotion to the study of their specialty, by scrupulously avoiding even the appearance of charlatanry, to command the best respect of the whole profession of medicine. I think advertisements in medical journals will be wholly discontinued by all members of the society. There is, in fact, almost an unanimous disposition to frown upon the slightest infringement on the spirit as well as the letter of the code of ethics.

It is certainly very unjust for the profession to hold specialists responsible for the acts of men who practice them unworthily—as unjust as it would be for the public to hold the medical profession responsible for every kind of quackery.

Oculists are undoubtedly inclined to be enthusiastic—possibly sometimes too enthusiastic in their estimation of the relative importance of their special department. But when we consider the incalculable value of the organ they endeavor to preserve, and look upon the splendid discoveries of the ophthalmoscope and of the operation of iridectomy; when we study the truths but recently established, respecting the function of accommodation of vision at different distances and its anomalies—the physiology of the oblique muscles, and the modifications in several important operations—we can overlook this weakness, if weakness it is.

And the oculist may be excused for pointing with pride to the many names which have honored his specialty, to the character of the ophthalmological societies in other countries, and of the papers which their members have produced, to the standard works upon diseases of the eye, and to the great merit of the periodicals devoted to the interests of ophthalmic science.

The social features of the convention should not be forgotten.

Dr. J. H. Dix, one of the oldest oculists in the city of Boston, gave an evening entertainment at his residence, not only to the members of the society, but also to many distinguished physicians of Boston and its vicinity.

Everything that could please, was afforded the guests of the evening—most delightful music, exquisite flowers in profusion, a table richly loaded with all that taste could suggest, and an opportunity for familiar conversation with many of the best minds in the profession.

On the following evening, the members of the society residing in Boston, gave a splendid banquet at the Parker House, at which only members of the society were present.

Beautiful flowers, elegant dishes of every kind, with delicate fruits in superabundance, and arranged in perfect taste, left nothing for the eye or appetite to desire. After all material wants, stimulated by the tempting delicacies of the table, had been more than satisfied, a couple of hours were passed in pleasant exchange of sentiment and good wishes.

You can be assured we all left Boston pleased with the success of our meeting, and grateful to our friends for their most successful efforts to entertain us.

The next meeting of the society will be held at Niagara, in June of 1867. E. L. H.

PROCEEDINGS OF MEDICAL SOCIETIES.

CHICAGO MEDICAL SOCIETY.

During the past month the weekly meetings of the society have given place to a monthly session, according to the time-honored usages appropriate to the heated term of summer. Our report must, therefore, be rather meagre.

RETENTION OF THE MENSES.

Dr. Orrin Smith reported the case of a married woman who, for two years, had retained her catamenia. The molimen occurred regularly every month, and the abdomen was much enlarged. The speculum showed that the os uteri was closed by adhesion of the lips. The patient had been under treatment for ulceration of the os and cervix previous to the commencement of retention. Dr. S. proceeded to relieve the patient by forcing a bougie through the cicatrix. The uterine cavity was entered without difficulty, and several pints of dark, grumous fluid were withdrawn. With appropriate treatment the woman recovered, and is now menstruating in a normal manner.

NEW APPARATUS.

Dr. Holmes exhibited and explained several varieties of spray producing instruments, or, as they are sometimes called, atomizers or pulverizers; also the instrument for producing local anæsthesia by freezing, and the apparatus for irrigating the nasal cavities with medicated fluids.

The essential portion of nearly all instruments for producing spray consists in a simple arrangement of two small tubes, (Bergson's Atomizing Tubes,) each terminating at one end in a very minute opening. These tubes are united at right angles with each other, the minute openings being in close juxtaposition. If one of these tubes be dipped in any thin fluid, and a current of air or steam (fig. 1) forced through the other, the fluid will be drawn up the first tube and carried in a jet of fine spray by the air or steam passing from the other tube.

Any soluble medicament can thus be carried in the spray

either by inhalation or by the *direct* force of the lungs, fauces or nasal cavities.

This manner of applying astringents and other medicinal agents to the mucous membranes of the air passages has been found by experience not only very convenient but attended with most beneficial results. In cases requiring the use of simple vapor, or that impregnated with lime, as for croup and diphtheria, some form of spray producer will be found convenient, since it can be readily put in operation under a suitable covering thrown over the patient's bed. The instruments may also be used for the diffusion of perfumes and disinfectants in the sick chamber.

One of the most simple and convenient forms of apparatus for inhalation is, perhaps, that (fig. 2) devised by Dr. W. K. Oliver, of Boston, who has devoted much attention to the study and treatment of diseases of the air passages. It consists of a kind of double-mouthed bottle, which contains the spray-producing tubes, the medicated fluid being placed at the bottom of the bottle. The spray is produced by forcing air through the tube by means of pressure of the hand upon a hollow india-rubber ball, as in a well known form of syringe.

The spray is formed within the bottle; on applying the mouth to one of the openings, the vapor is inhaled as rapidly as produced.

A very small form of atomizer may be used for producing a kind of douche for the eye, or, in fact, for any of the purposes just mentioned.

The freezer (fig. 3) consists of metallic tubes, constructed upon the same principles as the tubes, already described. The most suitable fluids from which the spray may be produced have been found to be either sulphuric æther or rhigolene. This last is a hydro-carbon, with a specific gravity of .625, boils at 70° Fahrenheit, and is the lightest known fluid. It is nearly identical with kerosolene, an efficient anæsthetic, as some four members can testify by actual personal experience, some years since.

The spray of æther or rhigolene from the point of this instrument, held near any portion of the body, will speedily produce

congelation and anæsthesia, as may be seen by the blanched appearance and by the insensibility on incising the part. This has been shown to be applicable in many of the minor but painful operations. No inflammatory action has been observed to take place in the tissues subjected to the influence of these agents.

[Through the kindness of Messrs. Codman & Shurtleff, of Boston, and a friend, who recently visited that city, we are able to present our readers with the following excellent diagrams and descriptions of the instruments above mentioned:]

Fig. 1.

Figure 1, *Steam Atomizing Apparatus.*—This consists of a Boiler, in which steam is generated by flame of lamp J. J, Lamp, provided with tube for graduating flame for much or little heat. K, Safety valve, graduating to high or low pressure. By unscrewing the valve tube from its position, the boiler may be supplied with water without disturbing the atomizing tubes. L, Milled button or top. Between this and a suitable projection or shelf within the neck of the boiler, is secured the packing of rubber through which the atomizing tube passes — air and steam tight. M, Wood ferrule to protect the hand from heat in removing the boiler and tubes for the purpose of changing the medicament. N, The atomizing tubes. O, Cup in which the medicament is placed. P, Shield for protecting the patient's face from unpleasant contact with the medicated vapors. Q, Joint allowing the shield to be moved to, and retained at, any necessary deviation from a horizontal position. R, Sliding staff regulating the height of the shield. By means of the joint Q and the sliding staff, the shield may be adjusted for use by adults or by children. Its advantages over all the Air Apparatus are:

1st. That being self-acting, it produces an even and continuous flow of spray without inconvenience or labor.

2d. The warmth of the spray produced by it is often an advantage.

Fig. 2.

Fig. 2 represents Oliver's *Atomizer and Inhaler.* A, Elastic Bulb with Valves, serving as a bellows to produce the spray within the jar. B, The Bergson Atomizing Tubes, the upright arm being formed in part by a rubber tube, which dips into the medicament placed in the bottom of the jar. C, Opening for the admission of air. The advantages of Dr. Oliver's instrument over all other hand instruments, consists in this:

1st. That the receptacle for the medicament and the shield for the protection of the face are united in one piece.

2d. That none but the finest of the particles of spray are inhaled.

3d. That the Bergson tubes being within the jar, are protected from injury.

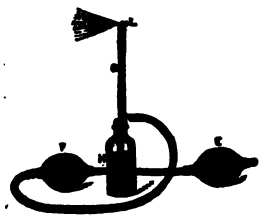

Fig. 3.

Fig. 3, *Freezing Apparatus for producing Local Anæsthesia.*—This form of apparatus is all that is required for producing Local Anæsthesia by freezing with Ether, as employed by Dr. Richardson, of London, or with Rhigolene, as described by Dr. H. J. Bigelow, of Boston, in the *Boston Medical and Surgical Journal* of April 19th, 1866.

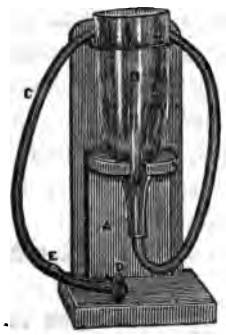

Fig. 4.

Fig. 4.—A form of *Nasal Douche* for the treatment of diseases of the nasal passages, as described by Prof. Thudichum. A, Black Walnut Stand. B, Conical Reservoir. C, Leading Tube. D, Nozzle. E, Joint. F, Ring, hinged to stand to support the Reservoir.

In using this kind of Douche, the Reservoir is placed higher than the head, and the rubber tube is grasped near the nozzle, between the thumb and finger, so as to con-

trol the current. The nozzle is then depressed enough to allow a little of the liquid to escape, thereby expelling air from the tube. It is then pressed gently into the nostril, and the grasp slightly relaxed, when the current will enter and fill the whole cavity of the nose and escape by the opposite nostril, the head at this time being thrown slightly forward over a basin, and the mouth kept open.

These instruments, with pure rhigolene, s. gravity, .625, as also pamphlets describing their use, with papers by distinguished medical men on this mode of treating certain diseases, may be obtained on application to Messrs. Codman & Shurtleff, 13 & 15 Tremont street, Boston, or to their agents, Messrs. Bliss & Sharp, Druggists and Apothecaries, 144 Lake street, Chicago.

ROCK RIVER UNION MEDICAL SOCIETY.

The physicians of Lee, Ogle and Whiteside counties met at Morrison, Ill., on Wednesday, June 13th, 1866. The meeting was called to order by the President, Dr. H. Utley. The minutes of the last meeting were read and approved. Drs. D. H. Law, of Dixon, and J. H. Page, of Como, were elected members. Dr. H. E. Dykeman was invited to participate in the proceedings of the society, and to be considered a member on presenting his credentials to the Board of Censors. The Treasurer reported the current expenses of the society all paid and seventy-five cents in the treasury.

Dr. G. A. Bardwell reported a case of cerebro-spinal meningitis in a young lady. The Doctor reported the case because of its presenting one peculiarity, viz., loss of vision in one eye, and a distinct milky appearance of the pupil of that eye.

The disease having prevailed as an epidemic during the past two years in several localities in this region, and many of the members present having been called to treat cases of the same, quite a lengthy discussion of the subject occurred.

On motion, the following resolution was unanimously adopted, viz:

Resolved, That as Dr. D. C. Gould, of Sterling, Ill., who claims to be a "regular physician," and who made application

to become a member of this society, but failed to present his credentials or diploma, and has recently claimed to have discovered a specific for the cholera, which he advertises as worthy of approval by the medical profession, and which he is selling to the people, we take this occasion to state, that we, as a profession and as individuals, do not endorse the course pursued by him, and we regard his so-called specific, a humbug, and himself an impostor.

As officers for the ensuing year, the society elected Dr. G. A. Bardwell, President, Dr. M. M. Royer, Vice-President, and Dr. H. C. Donaldson, Secretary and Treasurer.

Adjourned to meet at Sterling, on Wednesday, the 5th day of December next.

H. UTLEY, M. D., *President.*
H. C. DONALDSON, M. D., *Sec.*

Morrison, Ill., June 25, 1866.

MORGAN COUNTY MEDICAL SOCIETY.

JACKSONVILLE, ILL., May 17, 1866.

The Morgan County Medical Society met at the Court House at 2 o'clock P. M., pursuant to adjournment. The President being in the chair, the minutes of the previous meeting were read and approved.

The President announced the report of the committee on the Constitution to be in order, which was accordingly read by the Secretary.

Dr. Askew nominated Dr. McVey, of Waverley, for President the ensuing year, which being put to the house by the Secretary, was carried by unanimous vote.

On motion of Dr. Stephenson, Dr. J. P. Johnson, of Lynnville, was elected Vice-President.

On motion of Dr. Edgar, Dr. Bibb was chosen Secretary by a unanimous vote.

Dr. J. Craig, of Arcadia, having been nominated for Treasurer, was elected by unanimous vote.

The following gentlemen were elected as Examining Committee: Drs. W. S. Edgar, D. Prince, Henry Jones, C. Fisher and J. Askew.

The President announced the next order of business to be the reading of an essay by Dr. Henry Jones, on Asiatic Cholera. The Doctor having seated himself at the desk, commenced to read his manuscript at the forty-ninth page, (fearing that there would not be time to read all.) He was listened to with marked attention and interest to the conclusion, nearly two hours.

On motion of Dr. Prince, it was resolved that Dr. Jones be solicited to furnish a copy of his dissertation to some medical journal for publication. The thanks of the society were tendered to Dr. Jones for his very able and instructive essay.

On motion of Dr. Edgar, it was resolved to make Asiatic Cholera the subject of general debate at the next meeting of the society. Dr. Prince suggested that Dr. Edgar open that discussion.

On motion, it was resolved that the next meeting of the society should take place at 10 o'clock A. M., in this place, on the second Tuesday in June, to which time the society adjourned.

R. E. McVEY, M. D., *Pres't.*
G. R. BIBB, M. D., *Sec'y.*

MILITARY TRACT MEDICAL ASSOCIATION.

The leading physicians of the counties of Bureau, Henry, Knox and Stark, Illinois, met at Kewanee, May 22d, 1866, and organized a district association, designated the Military Tract Medical Association. The following gentlemen were elected officers of the society:

President—A. H. Thompson, M. D., Princeton.
Vice-President—H. Nance, M. D., Kewanee.
Secretary and Treasurer—G. H. Scott, M. D., Kewanee.
Censors—N. Holton, M. D., Buda; Jno. M. Morse, M. D., Galesburg; V. C. Secord, M. D., Galva.

Adjourned to meet in Galesburg, on the second Tuesday in December.

SELECTED ARTICLES.

We have noticed of late a disposition in certain medical gentlemen to court notoriety in a way that strikes us as not only very unprofessional but in very bad taste. We now not unfrequently see a notice of a "very difficult and dangerous operation," performed by a very skilful Surgeon A; of a very learned and scientific lecture on some rare (?) form of disease, by Dr. B; of some astonishing recovery brought about by the assiduous attentions of the eminent Dr. C; and we cannot make ourselves believe that such reports can find their way to the public without the knowledge of the principals. The extent to which this system is now being carried on is shameful, and deserves the serious attention of some Committee on Medical Ethics. It may, perhaps, be that the public are particularly anxious to know of the exploits of Dr. A., the views of Dr. B., and the success of Dr. C.; but it does seem strange that some of the doings of *our really substantial* men are not alike so faithfully and regularly reported.

The anxiety of the public to know something of cholera has tempted many an otherwise prudent man into the indiscretion of addressing a letter on the subject to some of our leading papers. There would be some shadow of an excuse for this if these gentlemen could be considered authorities in the matter; but, unfortunately for us, their ideas are crude in the extreme, and while they may tend to glorify the writer, inevitably stultify the profession. If the public desire to have any authoritative opinions concerning this disease, they can appeal to the Health Board and be satisfied; it is the duty of this body to minister to the wants of the community in this respect; and, so far as we can see, they do their duty.

Medical men occupying public offices have a right to address the public, to whom they are expected to give an account of themselves; there may be instances too, where late incumbents may, from necessity, rush into print to defend views before mooted in public; but it strikes us as discreet, at least, for other members of the profession to wait until their opinion is sought for, and not to cheapen their otherwise valuable services by volunteering too much.—*N. Y. Med. Record*, July 16, 1866.

A Splinter Embedded for Seven Years in the Muscles of the Forearm Without Causing Suppuration.

EDITOR MEDICAL AND SURGICAL REPORTER,—As the following case is an unusual one, and as its report will occupy but little of your space, I place it at your disposal:

Mr. G., of Kenosha county, called to consult me a few days ago, in relation to an enlargement, existing upon the anterior aspect of the right forearm. Seven years ago, in jumping from a hayrack, he struck the arm upon the splintered end of an oak stake, projecting from the side of the rack, inflicting a lacerated wound, an inch or more in length. It healed kindly in a few weeks, but there remained an enlargement, reaching from the beginning of the lower third of the arm, to the carpal articulation, well filling the space between the ulna and radius. Firm pressure at each end, and in its course, gave the impression that a foreign body of some kind had become safely lodged there, and the history given, suggested the possibility of its being a piece of the oak stake before mentioned. But was it possible, for a piece of *wood*, to remain embedded in the flesh for a period of *seven years*, and at no time to produce suppuration? This seemed impossible, but true it was, for a free incision through its extent, enabled me to remove a splinter of oak, two inches in length, and in circumference equal to a female catheter. It was a little darkened in color and polished like glass.

Racine, Wis., June 30th, 1866. J. G. MEACHEM, M. D.

EDITORIAL.

BOOK NOTICES.

Researches on the Medical Properties and Application of Nitrous Oxide, etc. By G. J. ZIEGLER, M. D., Physician to the Philadelphia Hospital, etc.

Instruction in the Preparation, Administration and Properties of Nitrous Oxide, etc. By G. T. BARKER, D. D. S., Professor of the Principles of Dental Surgery, etc., in the Pennsylvania College of Dental Surgery, etc.

It undoubtedly remains for the dental profession to present a practical solution of the problem how to secure the simplest and most convenient means of producing and administering nitrous oxide gas as an anæsthetic agent.

It can scarcely be expected that this gas, unless the apparatus for its preparation is much improved, can take the place of ether and chloroform in the ordinary cases for which anæsthetics are required by the surgeon and physician in general practice. For this purpose, the apparatus at present is too bulky and inconvenient for transportation from one patient to another.

With the dentist, however, the case is somewhat different. The operations he is called upon to perform are numerous, painful and usually of short duration, and performed at his office. It is therefore desirable that he should possess an agent which acts speedily, safely, and does not necessitate a long detention of his patient on account of nausea or semi-unconsciousness.

It would seem that protoxide of nitrogen is the most convenient anæsthetic known for the dentist, since it possesses the desirable properties just mentioned, and can be readily administered by means of tubing leading from the apparatus.

For the same reasons this agent may possibly supercede ether and chloroform in hospital practice.

The little volumes of Dr. Ziegler and Dr. Barker present concise statements of the most important practical points regarding the preparation and administration of this gas. This whole subject is an important one, and merits the careful attention of the profession.

It should not be forgotten that to dentists belong the honor of first practically demonstrating the safety of the use of anæsthetics, and, to a certain extent, of introducing them into general use. This fact, in a measure, confers an honor upon the whole dental profession, for which it may well be proud.

We cannot leave this subject without reminding our readers of a fact they can scarcely have overlooked, that the dentists of this country are securing for their profession a high position, not only as an art but as a science.

The art is carried to a perfection, which may excite the wonder of all who examine with care the difficulties which are overcome in the construction of artificial teeth and palates, and in preventing the loss of the natural teeth by different modes of filling.

The energy and success with which so many members of the dental profession are devoting themselves to the investigation of all that pertains to the anatomy, physiology and diseases of the mouth; the skill which they manifest in the treatment of diseases of the jaw and gums, in supplying the deficiency of cleft palate and the management of broken jaw, must command the respect of all educated physicians.

The character of the works on dental surgery, of the periodicals devoted to the interests of the dental profession, the number and tone of the various associations of dentists, and above all, the growing tendency to require dental students to pursue a course of medical study, are but evidence of the efforts our friends are making to elevate the position of their profession.

This field of labor is a most useful one—the relief of pain, and in no small degree the prevention of serious diseases, not only of the teeth but also of the whole system. The extent to which the dentists of our country educate themselves in everything that pertains to their department, will determine the place they will occupy in relation to the learned professions.

Eighth Annual Report of the Chicago Charitable Eye and Ear Infirmary, 16 East Pearson Street, presented by the Board of Surgeons, for the year ending May 1, 1866.

In accordance with the Constitution and By-Laws of the Association, the Surgeons would most respectfully report:

That during the year ending May 1st, 1866, five hundred and sixteen* patients have been under treatment, making an aggregate of two thousand six hundred and forty-two that have been treated since the opening of the Infirmary in 1858.

The following is a classified list of the diseases which have been treated during the past year:

DISEASES OF THE EYE.

Wounds and Injuries	14	Diseases of Lachrymal Apparatus.	11
Conjunctivitis, catarrhal	41	" Retina and Optic Nerve.	29
" granular	91	" Choroid and Sclerotic..	6
" " with vascular cornea	61	Opacity of Vitreous Humor	8
Conjunctivitis neonatorum	4	Glaucoma	1
" purulent	10	Diseases of Lens — Cataract and Injuries	11
" phlyctenular	20	Diseases of the Muscles	8
Diseases of the Cornea	66	Abnormal Accommodation	6
Foreign bodies on Cornea	7	Unclassified	25
Diseases of Lids	33		
" Iris	9	Total	451

* In the Report of the Committee of the Illinois State Medical Society on Diseases of the Eye, page 301 of the last issue of the Journal, instead of two hundred and sixteen, read five hundred and sixteen as the number of poor patients who had been treated during the past year at the Infirmary.

DISEASES OF THE EAR.

Diseases of the External Meatus...	20	Foreign Substances in Ear.	4
" " Membrana Tympani.....	8	Diseases of Mastoid Processes.....	1
Diseases of the Auditory Nerve....	9	Polypus.....	1
Impacted Cerumen.....	5	Unclassified.....	6
Catarrhal Deafness..	11		65

The Surgeons take pleasure in stating that a larger number of poor patients have sought advice and treatment at the Infirmary during the past than any previous year. It is a proof of the continued confidence with which its efforts are elsewhere regarded, that the expenses of patients from a distance have, not unfrequently, been borne by benevolent individuals in their respective communities. Physicians also in various parts of the Northwest have expressed warm interest in the welfare of this charity, and have frequently testified to the great good it has accomplished.

The benefits which many of these patients have received can scarcely be estimated. Parents, unfortunate and helpless, have been restored to sight and the means of supporting their families. A large number of children have been rescued, it is believed, from partial or total blindness—and thus from life-long poverty. Many patients, affected with diseases, trifling in themselves, but which, if neglected, are almost certain to result in permanent injury of vision, have been relieved by short and simple treatment. And it is upon this class of patients, that the Surgeons look with peculiar interest, as illustrating the manner in which this charity, if possible, accomplishes most good, by *encouraging poor patients, without fear of expense, to seek medical aid in the very commencement of their diseases, before they have assumed a dangerous form.*

There is scarcely any form of charity, whose claims can be so forcibly urged on the grounds of humanity and economy, as this. It relieves physical suffering and mental distress by the cure of painful diseases, and by removing fears of threatened blindness; it restores many with impaired vision to sight, and to their daily labors, thereby removing one cause of poverty; it prevents ignorance by rescuing poor children from partial or total loss of sight—thus enabling them to acquire the rudiments

of knowledge and to follow in after life honorable and remunerative occupations. How much more in accordance with an enlightened humanity is it to relieve such children, than to neglect them till they become dependent upon the Blind Asylum for their education and limited means of support.

On the ground of economy this charity claims *especial* consideration. So far as it prevents blindness—so far it lessens taxation by reducing the number of the poor dependent upon public or private charity—and so far it adds to the productive labor and wealth of the State. Its principle is Prevention, one of the first laws of Economy. It does not encourage the habit of idleness and begging, as, it is feared, is too often the case with direct pecuniary aid. It restores to health, hope and useful activity. It would be difficult to point to another form of charity by which so much good can be accomplished at so little cost.

During the war of the Rebellion, a large number of soldiers, soldiers' wives and children received gratuitous treatment at the Dispensary of the Infirmary for diseases of the eye or ear.

The Infirmary has been able during the past year to extend its charities to soldiers more largely than before, in consequence of the action of the N. W. Sanitary and Christian Commissions.

In view of the number of discharged soldiers with diseases of the eye, who were constantly applying for medical and surgical aid, the Northwestern Branch of the U. S. Sanitary Commission not only contributed valuable supplies of household furniture, especially beds, bedding and clothing, but also, by recommendation of the U. S. Sanitary Commission, created a fund for the support of soldiers at the Infirmary while under treatment.

The N. W. Sanitary Commission, also by recommendation of the U. S. Sanitary Commission, donated $500 to aid in constructing the enlargement of the Infirmary building, rendered necessary by the number of patients thus increased by soldiers seeking treatment.

The N. W. Christian Commission also donated the sum of $500 for the same purpose.

The number of soldiers in Illinois and the whole Northwest, who are incapacitated for self-support by diseases of the eye,

contracted in the army, and, for this reason, thrown upon the charities of their friends or the public, is known to be very large. For a long time this class of patients must depend in a measure for treatment upon such Institutions as this.

The fund created by the Sanitary Commission will enable the Infirmary to support but a limited number of the soldiers who will need this form of charity. Will not the public contribute means sufficient to spare the Infirmary the necessity of turning from its doors a single soldier deserving the aid it seeks to give?

The Surgeons take pleasure also in stating that the Infirmary was incorporated in February, 1865, by a special act of the General Assembly of the State of Illinois.

This charity is intended for the poor of the Northwest, as well as of Chicago. For such patients, treatment, medicines and lodging will be provided gratuitously. A charge is necessary at present for board, since the means of the Infirmary are insufficient to furnish this last without charge. Efforts will be made to establish a fund by which the poor may also obtain gratuitous board.

The Infirmary now possesses, with its recent enlargement, a commodious hospital building in a healthy portion of the city, near the lake, with all the conveniences necessary for the comfort and welfare of patients suffering from diseases of the eye or ear.

But with its increased capacity come increased calls from the poor for medical aid, and a greater demand on the public to assist the Infirmary in its benevolent labors.

The Infirmary is at No. 16 East Pearson Street, half a mile north of State Street Bridge, and is open at all times for the reception of the poor, afflicted with diseases of the eye or ear. The Dispensary of the Infirmary is also open from 2 to 2½ P.M. for such poor patients, not boarding at the Infirmary, as may require treatment.

WANTED, by Dr. J. H. Wilson, Marion, Linn county, Iowa, Nos. 1 and 6, 1864, and No. 7, 1865, of the Journal, for which a handsome price will be paid.

Why Not? A Book for Every Woman. The Prize Essay to which the American Medical Association Awarded the Gold Medal for 1865. By H. R. STORER, M. D., of Boston. Lee & Shepard, Boston.

In spite of the unfortunate title of this little volume, and in spite of certain peculiarities which lay it open to severe criticism, were any one sufficiently captious to quarrel with a work which conveys the truths which this contains, we are glad to see that Dr. Storer's tract is at length before the public.

Total ignorance of all that the natural instinct does not impart concerning the sexual functions, would be safer and better than the fancied knowledge with which the men and women of the present day have been led to suppose themselves in advance of their simple-minded ancestors. But since the innocent days of the childhood of the world in such matters cannot be recalled, the only safety of the race is to be found in complete information. This it is the duty of our profession to convey. We therefore cordially commend this essay to the attention of all for whom it was designed, believing that a flood of suffering and wretchedness may thus be averted from many a family throughout the land.

For sale by Cobb & Pritchard, Lake street, Chicago.

We glean from the *American Literary Gazette* the following lists of books, either recently published or in course of preparation for the market:

List of Medical Books recently published in the United States.

Bennett's Clinical Lectures. *Third Edition.*
Da Costa's Medical Diagnosis. *Second Edition.*
Echeverria's Reflex Paralysis.
Schmoele on Asiatic Cholera.
Seguin on Idiocy and its Treatment by the Physiological Method.
Sim's Clinical Notes on Uterine Surgery.
Storer's Why Not? A Book for Every Woman.

Works announced for early publication.

Aitken's Science and Practice of Medicine. From the Fourth London Edition.
Basham on Dropsy.
Beale on the Microscope in Practical Medicine.
Dixon's Treatise on Diseases of the Eye.
Duchenne's Localized Electrization.
Ellis on the Safe Abolition of Pain in Labor and Surgical Operations.
Prince's Orthopedic Surgery.
Remak's Electro-Therapeutics.
Reynolds on Diseases of the Brain and Nervous System.
Trousseau's Clinical Medicine. Vol. I, Part I.
Waring's Practical Therapeutics.
Zander on the Ophthalmoscope.

Books recently published in the United States, but manufactured abroad.

Beale's How to Work with the Microscope.
Beraud's Atlas of Surgical and Topographical Anatomy.
Holmes' System of Surgery.

Works recently published in Great Britain.

Annandale's Surgical Appliances and Operative Surgery.
Barclay's Gout and Rheumatism.
Barker's Diseases of the Respiratory Passages.
Griffith's Dermatology. Treatment of Skin Diseases.
Leach's Brief Notes on the Cholera in Turkey.
Macpherson's Cholera in its Home.
Moon's Handy-Book of Ophthalmic Surgery.
Smith's Common Nature of Epidemics.

OBITUARY.—Peter T. Lange, M. D., Chicago, drowned while bathing in the lake, July 14, 1866. The deceased was a member of the last class which graduated from Rush Medical College, and had engaged in the practice of his profession in this city with the fairest prospects of brilliant success.

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ORIGINAL CONTRIBUTIONS.

Two Cases of Thoracentesis—Recovery. By J. W. FREER, M. D., Prof. of Physiology and Surg. Anatomy in Rush Med. College.

CASE I. B. Smith, æt. 12 years, came under my observation through the kindness of Dr. Dodge, the attending physician, on the 12th of February, 1860. The early history of the case is quite obscure, the boy having been sick with what he termed a pain in his side some five weeks before applying for medical aid, at which time the Doctor informed me the left pleural cavity was completely distended with fluid.

Symptoms at the time of operation, Feb. 12th.—Left pleural cavity greatly distended; intercostal spaces pressed out even with the ribs; measurement 1¼ inches greater than the right side; heart occupied a median position; dullness on percussion throughout the diseased side; no respiratory murmur; strong puerile respiration over the right lung. The dyspnœa was very urgent, attended with livid countenance, blueness of lips and orthopnœa.

The operation of thoracentesis was at once decided upon and performed between the sixth and seventh ribs, at the junction of the digitations of the serratus magnus with the external oblique muscles. More than 70 ounces of pus were withdrawn.

As I did not see the case again, I will refer to Dr. Dodge for the subsequent history.

He says: "I had an opportunity of watching the case more than six months after the operation. In four weeks he was running about the street. From time to time, on examining his chest, I found the respiratory murmur in the compressed lung continued to increase and improve, until finally the function of the lung seemed quite restored and the boy was enjoying robust health."

CASE II. John Kennedy, aged 23, gas maker by occupation, of robust constitution and sanguine temperament. Saw him the first time on February 9th, 1866, in consultation with Dr. Dodge. The history of the case was that of pleuritis of left side with subsequent effusion.

Symptoms.—No respiratory movements of left thorax; no resonance on percussion excepting in the sub-clavicular region; in the sitting posture, respiratory murmur absent; strong puerile respiration on the right side. The dyspnœa was of the most urgent character; the lips blue and countenance livid; number of respirations per minute, 40.

The patient was obliged to maintain the sitting posture in order to alleviate these distressing symptoms.

Thoracentesis was at once decided upon, and the operation performed in the same situation as in the former case. About 90 ounces of clear serum were withdrawn, with immediate relief of the most urgent symptoms. The lung did not fully expand at once, but bronchial respiration could be heard over the anterior and upper two-thirds of the diseased side. I did not see the patient again, but Dr. Dodge informs me that, at the end of four weeks, he seemed to have fully recovered, and at the present time is engaged in his usual pursuits.

Remarks.—Respecting the propriety of tapping the chest in cases of empyema, we believe at the present time there is no difference of opinion among enlightened medical men—all concede it to be an operation about which there need be no hesitation; and had not the recovery in this case been so unusual as regards time and final completeness, I would not have troubled the readers of the Journal with its rehearsal. In fact, recovery

from empyema, with or without operation, is the exception rather than the rule.

Bowditch says: "In 26 out of 75 cases, serum was found, and 21 of these patients got wholly well. If after the first operation the fluid becomes purulent, an almost fatal prognosis should be made."

Again, he says: "Pus was found at the first operation in 24 cases. Seven of these cases recovered wholly; 7 died; 9 were relieved one or many times; but they had either a long and tedious illness, terminating usually in phthisis, or a fistulous opening, or a still doubtful result."

As regards the second case, that of serous effusion from pleuritic inflammation, the propriety of performing the operation of paracentesis is not as fully established, unless as a dernier resort. We are directed in such cases to exhaust every other means for the purpose of promoting absorption—such as blisters, iodine, mercury, etc.; these failing, and the danger having become imminent, we are permitted to tap. But thanks to the labors of Bowditch, Wyman and others, many of the fancied dangers attending this operation have been resolved into groundless apprehension. The principal danger, that of admitting air, is entirely obviated by the use of Wyman's suction pump, or by using a trocar and canula with a stopcock, and attaching to the instrument a rubber tube or a gum catheter, the distal end of which is immersed in water.

With the above precautions, we believe it should be resorted to before urgent symptoms appear, while the lung is still free to expand, and not bound down by adhesions or otherwise injured in its textures.

A Case of Menstruation by a Child Five Years of Age. By A. E. Ames, M. D., Minneapolis, Minn.

Addie E. Tinsley, daughter of G. W. Tinsley, of Minneapolis, Minn. Her parents are healthy people. From her birth, until she was four and a half years old, she was never sick. At this time she was feverish and somewhat nervous for a few days, and then menstruated as a girl at sixteen years of age. This

she continued to do every month until last July, when I was called to see her. Her nervous system was much affected during the period of menstruation: during the remainder of the time she appeared quite well. She had strabismus when sick.

I gave hyd. cum creta and rhei powders, and corrected the secretions and a slight constipation; then gave, two or three times each day, a small quantity of infusion of humulus. For the past year she has been perfectly well, and no signs of menstruation. The organs are normal. She is now six years of age.

Excision of Four Inches of the Right Humerus subsequent to Excision of the Head and Upper Third—Recovery with a Useful Arm. By A. J. BAXTER, M. D., Chicago, Ill.

Excision of this articulation has been performed more or less during the last century, but the credit of bringing it prominently before the profession, and establishing its many advantages over what some would fain call the opprobrium of our art —amputation, is certainly due the surgery of the last ten years. Yet there are some points in connection with this operation which are to be determined by future experience—one of the most important of which is: How much of the superior extremity of the humerus can be removed, provided the soft parts and vessels are in a suitable condition, with a fair prospect of a useful arm remaining.

Mr. Guthrie, in speaking of gunshot injuries of the superior extremities, says: "An upper extremity should not be amputated for almost any accident which can happen to it from musket shot." I imagine if this holds good in regard to gunshot injuries, it will do for those produced by other agencies, as it is not the cause but the effect that necessitates surgical interference. But further on he would appear to throw some doubt on this assertion, where he says: "When the splinters extend far into the shaft of the humerus, it may be proper to amputate the whole extremity." Nearly all systematic writers, in speaking of this operation, say the incision should commence beneath

the acromion and extend nearly as far as the insertion of the deltoid; and, as the incision is generally longer than the bone removed, it may be assumed that four inches is about the average maximum to which excisions have been carried, a greater amount of injury generally resulting in amputation. As a partial answer to this question, I submit the following case, for the notes of which I am indebted to my friend, Dr. W. C. Hunt:

"J. A——, fireman, aged 34, injured at a fire on the night of June 8th, 1865, by the falling of a brick wall. He was completely buried in the ruins; a portion of the wall striking the right shoulder (while he was standing) and another mass enclosing his body, so that his elbow rested upon it. The humerus was broken immediately below the head, and the splintered end of the lower portion protruded through the deltoid muscle and skin an inch or more. There was extensive contusion and laceration of the structures around the elbow joint. He was removed to his home, the end of the humerus excised, the head of the bone removed—making about four inches including the head of the bone. The wound at the elbow was dressed, and from that time he progressed apparently well until about the 1st of August, when it was discovered that the upper end of the bone was necrosed. At that time I was compelled to be absent from the city, when Dr. A. J. Baxter was requested to take charge of the case."

The arm was considerably enlarged, especially about the elbow, where quite a number of fistulous openings existed, leading up the arm; also a large one corresponding with the upper extremity of the humerus, through which dead bone could readily be detached. In consultation with Prof. J. W. Freer, it was decided to remove the dead bone—chloroform having been administered by Dr. Macdonald. An incision was made on the outside of the arm of sufficient extent to expose the upper extremity of the humerus, when it was discovered that the bone was much more extensively involved than was anticipated. About an inch and a half of the upper end was necrosed, and a line of separation commenced—below the bone was felt to be in a carious condition as far as the finger could

be carried. Accordingly, the incision was extended to within a couple of inches of the elbow, and the dead and carious bone removed, making four inches—leaving about three inches of the lower extremity of the humerus. The periosteum was too much destroyed to be of any service in reproducing the bone. The wound healed without any trouble. A very severe eczema traumaticum made its appearance about the elbow and forearm, which was relieved by smearing the whole surface with ungt. zinci benzoatum and covering with oiled silk. The motions of the forearm and elbow are perfect. When the arm is hanging by the side, the hand can be raised to the breast. Although the elbow is gradually approaching the shoulder, and the movements of the arm improving accordingly, he probably will never be able to get the hand to the mouth.

A Case of Locomotor Ataxy. By HENRY T. GODFREY, M. D., of Benton, Wisconsin.

P. McD——, aged 32, commercial traveler, of rather intemperate habits, applied to me about the 1st March of this year for medical treatment. His history is as follows: About four years ago, while traveling in Ireland, was attacked by paralysis after a severe horseback ride. Had felt stiff and uncomfortable for several weeks previous, but attributed it to fatigue. Was treated by an eminent Dublin physician with cold baths and tinct. nucis vom., and had so far recovered at the end of two months as to be able to walk about and resume some of the lighter branches of his business, but he has never since entirely recovered the power of his lower extremities. When first I saw him he complained of a tingling sensation from the knees downward; loss to a considerable extent of the co-ordinating power in walking, which obliged him to walk with a cane; inability to walk at night or with his eyes shut; his legs, as he expresses it himself, "fly in all directions." These symptoms are much aggravated by excitement or the use of alcoholic stimulants. His general health is good, but he complains that his memory is not quite so good as it was sometime ago, and thinks it is getting worse.

I advised the use of the galvanic battery, and prescribed tinct. ferri sesqui-chlor. gtt. xx., strychniæ, gr. $\frac{1}{24}$ three times a day. After a few days this mixture began to disagree with his stomach, producing nausea, loss of appetite, etc. I then discontinued the tinct. ferri, dissolving the strychnia in tinct. card. co. by the aid of a few drops of dilute nitric acid. The dose of strychnia was gradually increased to $\frac{1}{12}$ of a grain three times a day, and continued till it produced spasmodic twitchings of the muscles. The battery used was Hall's galvano-magnetic. The current was passed from the last dorsal vertebra alternately to each foot twice a day. Cold sponge bath used every morning and total abstinence from excitement and intoxicating liquor, with a liberal diet, was enjoined.

He continued this treatment for about three months without any very marked improvement after the first two weeks. At the end of the third month of treatment, he won a lawsuit, a success which proved too much for his temperate habits, so he went on a systematic spree for about two weeks,—coming to town in the morning and hiring a conveyance to carry him home as soon as he got too drunk to take care of himself. I have just seen him to-day in such a condition that he walks with difficulty and only a short distance at a time. I attribute the improvement obtained in this case, on both occasions, rather to the hygienic than to the strictly medical treatment.

Gonorrhœa Caused by Leucorrhœa. By BENJAMIN DURHAM, Jr., M. D., Chicago, Ill.

(Read before the Chicago Medical Society.)

Even in the medical profession there is a wide-spread empiri cism with regard to venereal affections. The first application for professional advice made to the medical student is for some remedy which will safely, secretly and quickly remove all symptoms of a "private disease;" and through life there generally is an unrecognized tendency to consider these disorders as entirely dissimilar to derangements in other portions of the system, since their origin is generally disgraceful, and very many receive with scorn the opinion that a man may contract

one of the diseases of this class, viz., gonorrhœa, without transgressing the rules of morality. On account of this early prejudice, some rarely think of this affection as an inflammation of the mucous membrane of the urethra which has proceeded to suppuration, and which often is increased by the irritation of the urine in its passage. But viewing it in this light, we cannot avoid the conclusion, that while it is generally produced by connection with a person previously having the same disease, yet it may occur among persons of virtuous habits, and on this point we must receive as conclusive the evidence on which we can rely in regard to other concerns of life. In regard to the cause of gonorrhœa, patients will generally lie, and yet sometimes will tell the simple truth, which is irresistible, because supported by the circumstantial evidence. Recently two cases have come under my observation, where I am willing to place implicit trust in the parties.

A lady consulted me in regard to the possibility of her causing an urethral discharge in her husband. She was well advanced in lactation, had not menstruated since the birth of her child, was in good health, and enjoyed quite moderate sexual intercourse as both husband and wife were watching for the return of her menses. Two days after marital connexion her husband complained to her of a slight itching heat of the glans penis, and four days after of a discharge. He consulted a physician, who told him he had the gonorrhœa, and prescribed some remedies which readily cured him. The wife then noticed a slight leucorrhœal discharge which she had not thought worthy of attention; but as her husband wished her to use the medicine prepared for him, together with vaginal injections, every trace of disease passed away, though she was unwilling to believe that such a slight discharge could cause a gonorrhœa, when years before, a severe uterine leucorrhœa, accompanying an ulceration of the os uteri, had not affected her husband. Still she had no cause to doubt her husband's purity, especially as he had made no attempt at concealment.

Again, a gentleman of good character complained to me of an irritation of the glans penis, which I supposed was a casual irritation, and so without examination I directed him to syringe

out the urethra with cold water, but he returned in two days with a free gonorrhœal discharge. Nine days previous to his first calling he had connection with his wife, and that was the only known cause for this disease. She supposed herself perfectly well, was pregnant, and had not suspected any trouble with herself, though she too had previously been treated for ulceration of the os uteri, and at that time the leucorrhœa had not produced any urethral discharge from her husband.

Before gentlemen sneer at the truth of these statements, let them remember that no means of investigation as yet in our power can discriminate between the suppurative discharges from an inflamed urethra and those from similar mucous membranes. The gonorrhœal discharge consists in an alteration of the urethral mucus, (sometimes combined with the secretion of contiguous glands,) which has been called by Ricord "mucopus," and not only may be originated by lawful connection but even without sexual intercourse. Hunter knew of the urethra repeatedly sympathizing with the cutting of a tooth with all the gonorrhœal symptoms, and likewise in cases of gout and rheumatism. Ricord holds similar views. Bumstead quotes Ricord, Harrison and Latour as teaching the production of gonorrhœa by tubercular deposit, scrofulous diathesis, free indulgence in fermented liquors, terebinthinate medicines, eating asparagus, and prolonged sexual excitement as in the case of a physician who, for nine hours, vainly attempted to overcome the virtue of a woman who resisted all his approaches. But especially does Bumstead bring up proofs of the subject before us, on which Ricord says, "Gonorrhœa often arises from intercourse with women who themselves have not the disease. Any one who studies gonorrhœa without preconceived notions is forced to admit that it often originates from the same causes that give rise to inflammation of other mucous membranes." Diday says, "A man should never forget that gonorrhœa may be contracted from *any* woman." Fournier thinks "gonorrhœa is less frequently contracted from contagion than from excessive coitus." Bumstead quotes Mr. Thompson, Mr. Skey, and especially Dr. B. F. Barker, who says he has noticed in *numerous* instances in married life urethritis produced by an acid and

acrid discharge from the uterus. Every one who will give this subject much thought will find instances where gonorrhœa originates from coitus at or near the menstrual period, or where the woman is suffering from leucorrhœa. But here the inquiry may be raised—Why then does not gonorrhœa result oftener from marital intercourse? To this we may answer, that many men are afraid to trust their physicians with a recital of their cases lest a suspicion of impurity may be aroused; secondly, lawful connection is generally without excessive excitement and not long continued; thirdly, married ladies are generally particular at their toilet to remove leucorrhœal discharge by the use of the syringe; and lastly, the urethra, as well as other organs, becomes habituated to the presence of irritants, and thus escapes infection.

Two Cases of Poisoning and Two Cases of Surgery. Related to the Chicago Medical Society, Aug. 3d, 1866, by HIRAM WANZER, M. D., Chicago.

CASE I. POISONING WITH LAUDANUM.

A. C., aged 25, at midnight, May 3d, 1866, swallowed two ounces of laudanum. Soon after the occurrence, was taken to his home. Nearly an hour elapsed before I saw him. I found him in a state of profound insensibility; the skin covered with cold sweat; the pulse slow and moderately full; the pupil of the eye contracted; the breathing stertorous. There was preternatural heat of the head, indicating cerebral congestion. I applied cold water immediately to the scalp. After the application had been continued for half an hour, reaction and consciousness was sufficiently established for the administration of an emetic. The stomach was so paralyzed, that it was not until large quantities of warm water had been drank, assisted by mechanical irritation of the fauces, that emesis was induced. After the act of vomiting, he relapsed again into his coma. There had been sufficient of the poison absorbed into the blood to prolong the narcotism for twelve hours. He was aroused every hour to take five grains of carbonate of ammonia in emulsion. This, I believe, exerted a powerful influence in

establishing a more complete reaction. Thirty hours after taking the drug, his health being quite re-established, he left the city.

CASE II. POISONING WITH CORROSIVE SUBLIMATE.

On the 30th of May last, I was called to see Mrs. W——, aged 35. She had swallowed two ounces of a solution of corrosive sublimate, which contained three grains of the mineral. The prompt action of an emetic, and the administration of the white of eggs and other albuminous substances, rendered the remaining poison so inert, that she suffered no material harm from her imprudence.

CASE III. ANKYLOSIS OF THE KNEE-JOINT.

A Swede, master of a vessel, aged 25, called at my office, 27th of April last, with extra articular ankylosis of the left knee-joint. He stated that in the month of January last he had been struck with an axe, which caused a penetrating wound one inch and a half in length, at the inner edge of the patella, resulting in the immediate escape of the synovial fluid. Active synovitis and complete immobility of the joint followed. The limb was placed in permanent extension. The want of flexion, resiliency and mobility of the joint seemed to have depended upon plastic deposit and chronic thickening in the synovial membrane and fibrous textures of the joint. Even the quadriceps tendon and hamstring muscles had participated in the inflammatory action and plastic effusion, they being in a state of great rigidity and soreness. The superficial structures of the joint were tender and œdematous. There was an enduring cicatrix which somewhat embarrassed the future treatment, but will never impair the usefulness of the joint. All medical treatment having failed, and fearing the case would, at no distant period, result in true permanent osseous ankylosis—upon his first visit, I seized the limb and made forcible flexion. I succeeded at this time in breaking up most of the adhesions. After the operation, daily passive motion was enjoined. Frictions were made with chloroform liniment, alternated with the hot salt douche. We have succeeded in restoring perfect mobility to the limb. The inflammatory deposits appear to have been

absorbed and the joint restored to its normal size and functions. The man now walks with ease; is pursuing his accustomed vocation.

CASE IV. PENETRATING WOUND OF THE ABDOMEN AND INTESTINES—RECOVERY.

A. B., a boy, 9 years old, of English birth, July 26th last, had ascended a cottonwood tree to the height of twenty-five feet. A broken branch, upon which he was standing, gave way, precipitating him upon a picket fence situated under the tree. Three of the pickets inflicted severe injuries upon the body. The first, striking the upper third of the left tibia, made an oblique indentation of the bone upon its cancellated tissue, two inches in length, without fracture. There was also a severe contusion over the crest of the right tibia, at the junction of the middle with its upper third. The second picket entered the left axillary space, making an extensive wound without entering the thoracic cavity. The third picket entered the left inguinal region, dividing the structures transversely across this region and the hypogastric, peeling up the tissues from the muscles about three inches in a valvular manner. The wound through the abdominal muscles was circular, and did not exceed one inch and a half in diameter. The peritoneum and one of the coils of the intestines were lacerated. The rent in one of the convolutions of the ilium was an inch; the aperture ragged, and the mucous membrane everted. There was a small spot upon the ilium, near the injured part, that looked dark and gangrenous, and which I was apprehensive might sphacelate.

I saw the patient twenty minutes after the accident. The protruding mass lying outside was the size of a large orange. There was also hernia between the abdominal muscles. There seemed to be a sort of artificial pouch in the cellular substance between the fascia transversalis and the transversalis muscle, containing as much intestine as protruded externally. Pulsation of one of the mesenteric arteries was visible, but there was little hemorrhage.

Dr. W. R. Marsh having given chloroform to anæsthesia, the

legs being flexed, and the abdominal muscles relaxed as much as possible, with tepid water I gently washed the fecal matter and other foreign substance from the wounded structures, coapting the edges of the wound of the intestine with continuous sutures, cutting the same off closely. The protruding mass was then returned by taxis. I found that reduction through the small aperture in the abdominal muscles by taxis, in the axis of the tumor, seemed impossible without enlarging the opening; but by steadying the tumor outside with the left hand, I introduced the index and middle fingers of the right within the constriction, and by gentle pressure, little by little, returned the hernial protrusion with as cautious manipulation as possible. Ascertaining by the touch within that the viscera were all in their proper position, the external wound was closed with several interrupted sutures, a compress and bandage. A single suture was all that was necessary for the wound in the axilla.

The patient suffered during the first twenty-four hours from shock. In forty-eight hours after, there was preternatural heat and some tenderness and fulness of the abdomen, indicating the approach of fatal peritonitis. In a few hours those unhappy symptoms all disappeared. The wounds nearly healed by the first intention. The patient complained exceedingly at times during the first seven days, of vesical tenesmus, when the bladder became in the least distended. During this time, there was also much thirst and febrile reaction. The treatment during the first ten days, was one quarter of a grain of opium every four hours. The sutures were allowed to remain undisturbed. Cold water was applied continuously to the abdomen. The diet was exclusively liquid, such as could be absorbed into the blood with as little fecal residue as possible, such as milk, barley water, chicken broth, and beef essence.

The bowels were not moved for fifteen days, at the end of which time he complained of pain. An oleaginous enema was then given which resulted in a large passage of impacted feces. Twenty days have now elapsed, and we regard the patient out of danger.

HOSPITAL REPORTS.

Surgical Clinic. By R. G. Bogue, M. D., Attending Surgeon to the County Hospital. Reported by N. T. Quales, House Physician.

CASE I. STONE IN THE BLADDER—LITHECTASY—RECOVERY.

This little girl, three years of age, has been suffering from some urinary difficulty for more than a year—(for the last four months she has been worse)—being obliged to make water very often, passing but little at a time, always with more or less pain, and now complains most of the time of pain in the pubic region. She is fretful and irritable, and has the general appearance of suffering from some long-continued constitutional irritation.

From her general appearance and the local symptoms, it was suspected she might have stone in the bladder; and on introducing a catheter, to procure some urine for examination, a stone was reached. The little girl was etherized, and with a small, straight sound, the stone was felt very distinctly—the sharp click of the instrument was plainly heard. The stone seemed to be of some considerable size. The urine has been examined; it is acid, and loaded with crystals of uric acid and a large amount of urate of ammonia.

The operations for removal of the stone from the female are usually by crushing or by dilatation and incision of the urethra. In children the urethra does not dilate as largely in proportion as in adults. In this case the urethra has been dilated all that is possible by the use of compressed sponge tent, for several hours each day for the last three or four days.

[The little patient was etherized, the tent removed, and the mucous membrane of the urethra divided on either side of the median line inferiorly, by passing a straight, blunt-pointed tenotome into the urethra and cutting downward and a little outward. This allowed the introduction of a small pair of polypus forceps, a little curved at the end, with which, after a good deal of patient effort, the stone was seized and brought into the urethra, where it seemed too large to pass, and another incision was made in the mouth of the urethra upwards, and

the stone removed. The bladder was washed out with tepid water, a cloth wet with cold water applied to the vulva, and potass acetat., grs. v., three times a day was prescribed. There was but little bleeding and very little pain afterward. She was put to bed and kept quiet. After about four hours she sat upon the chamber vessel and passed a few ounces of urine. Her recovery was rapid. She passed water regularly, and had incontinence only when the bladder became a good deal distended. She passed water not more than four times a day after the operation. There was very little soreness or tumefaction of the parts; all of which subsided in the course of three or four days. The stone was flattened and pointed, resembling in form an almond, weighing thirty-one grains, and composed of concentric layers of uric acid and urate of ammonia. She improved in general health and appearance, and was discharged, cured.]

CASE II. RATTLESNAKE BITE—RECOVERY.

This patient has a poisoned wound of the hand, made by the bite of a rattlesnake. The diagnosis in these cases is always clear enough—from the circumstances and from the patient, the nature of the injury is readily ascertained. But as regards the treatment, much time has been spent by the profession, first, to find something to destroy the poison, and second, to prevent or counteract its effect. Various chemical agents have been used to destroy the poison. Dr. Mitchell, of Philadelphia, in his experiments, found no chemical agent that destroyed it when fresh from the snake. Professor Brainard, of this city, from a series of experiments, came to the conclusion that a solution of iodine, injected into the tissues about the wound, destroyed its effect. It is probable that if this be of any service, it must be used earlier than is common for a patient to be seen by a physician, for the poison is rapidly admitted into the circulation, where it would seem to be out of the reach of local remedies. It is most likely that little or nothing can be done to destroy the poison itself, but means must be used to prevent its fatal effect; which is, first, to destroy life by overwhelming the vital energies, and secondarily, by producing phlegmonous

inflammations. The patient is to be kept alive until the poison can spend its force, or be eliminated. We must resort to free stimulation with alcohol, to which it might be of advantage to add carb. ammonia if there were excessive prostration. Heat should be applied to the extremities, and counter-irritants over the abdomen and thorax, if there is vomiting or difficulty in breathing.

Our patient is an Irishman, about 23 years old; by occupation a professional snake tamer; was admitted into the hospital, May 18th, about 11 o'clock in the evening, with a wound in the middle of the palm of the left hand, made by a rattlesnake five hours previously. The wound had been cauterized with nitrate of silver, and the man had taken rather freely of whisky. Condition, on admission, nearly comatose, surface cold, pulse not perceptible at the wrist, heart beat feeble, (55 per minute,) respiration 14, labored, constant vomiting, both hands and forearms swollen and very painful, glands in left axilla swollen and tender.

Treatment.—Tr. iodine applied freely to the hands and forearms, sinapisms to abdomen, heat to extremities. Stomach rejecting everything taken, six ounces of whisky were thrown into the rectum. Reaction soon began, and in the course of half an hour the pulse returned at the wrist, 80 per minute, respiration 18. Surface getting warmer, vomiting less frequent, and ceasing in the course of an hour, when about ℥ij. of whisky, with morphiæ sul. gr. ½, were given and retained. He soon fell into a quiet sleep. No further medication during the night.

19th. Body warm; pulse about 80, moderately full; respiration 20, somewhat labored; moderate cough, with expectoration of bloody mucus; swelling of left limb extending up the arm, right only to the elbow; severe pain in left, moderate in right; about the wound were several large vesicles filled with very dark, bloody serum; has had several bloody passages from the bowels; no blood in the urine—(blood in the urine is common in these cases)—tongue swollen to nearly twice the normal size. He being very filthy, was given a warm bath. Tr. iodine again applied to the hands and arms, beef-tea for nourishment, and milk-punch given freely. Sodæ sulphis, gr. xv., every three

hours; morphiæ sul. gr. ¼, every three or four hours, to quiet the pain.

20th. Much as yesterday, except less pain, and swelling subsiding in right limb; less cough, and expectoration not bloody; no blood in the passages from the bowels. Ordered flaxseed poultice to wound, and warm fomentations to the right hand and both arms. Other treatment continued, except the tr. iodine.

21st. To-day there is but little pain; swelling subsiding in both arms, he feels comparatively well every way, and is now out of danger.

In these cases the blood is poisoned, and it would seem to be disorganized, more or less depending upon the amount of the poison introduced; as it shows itself in the secretions from the bowels, kidneys and lungs. The iodine was used in the case not with the expectation of destroying any of the poison, but as I would use it in similar inflamed conditions of the skin and subcutaneous cellular tissue. The sulphite of soda is being used a good deal in cases of blood poisoning, and perhaps it may be of service in these cases—certainly it is orthodox in theory to use it.

[In the course of a few days the swelling and pain entirely subsided; the wound healed, and the man was discharged, cured, May 30th, 1866.]

PROCEEDINGS OF MEDICAL SOCIETIES.

CHICAGO MEDICAL SOCIETY.—AUGUST, 1866.

ENCEPHALOID CANCER OF THE SKIN.

Dr. Bogue exhibited a very interesting and unusual specimen of tumor, which he had removed from the left forearm of a patient at the Cook County Hospital.

The patient, a young man, 17 years of age, had received a blow from a canteen on the inside of the forearm, just below the elbow. From the effects of this blow there was soreness and swelling, which slowly developed into a peculiar tumor. This was "shaved off" about a year after receiving the injury.

At the time of entering the hospital, twelve months after the first removal of the tumor, the patient was in the following condition: The physical appearance and general health were most excellent. The tumor was nearly two inches in diameter, and globular in form. The whole growth was readily removed by an elliptical incision, since it was confined entirely to the tissue of the skin.

Dr. Lyman, who had made a microscopic examination of the tumor, stated that it was composed of granular matter, without any peculiar or characteristic cells. He regarded it as the product of encephaloid disease.

SANITARY REPORT.

Dr. Davis gave an interesting verbal report of the sanitary condition of the city during the month of July.

The first ten days of the month had been uniformly damp, hot and sultry, with frequent showers. For the remainder of the month there had been frequent changes, so that there were at no time more than three successive hot days.

During the prolonged hot weather, cholera morbus and dysentery were very prevalent. Dr. Davis had seen three very severe cases of the former disease, which presented some of the sypmtoms of true cholera, but without collapse and shrivelling of tissues.

There had been an unusual number of cases of continued fever with symptoms of typhus. The attack was more rapid than in ordinary enteric fever. Delirium, pain in the head, rheumatic pain in the joints, constipation, and the peculiar odor of typhus, were the characteristic symptoms. There was great difficulty in modifying the disease favorably by treatment.

Dr. Davis proposed to bring the subject more fully before the society at another meeting.

CASES OF POISONING BY OPIUM AND BY CORROSIVE SUBLIMATE.

Dr. Wanzer reported a case in which a man had taken ʒii. of tinct. opii. An hour after the poison had been taken, he succeeded in producing emesis, when he directed constant effusions of cold water over the head. Although the symptoms for a time were very alarming, the patient recovered.

Dr. Wanzer also reported a case, in which a woman had intentionally swallowed a solution containing gr. iii. of bichloride of mercury. Large doses of albumen prevented all dangerous symptoms.

POISONOUS EFFECTS OF ATROPINE INSTILLED UPON THE CONJUNCTIVA.

Dr. Holmes related two cases in which patients had been brought under the constitutional effects of belladonna by the instillation of a drop every hour of a solution of neutral sulphate of atropine, gr. iv. to the ℥ of water.

The patients were both men about 35 years of age, and in vigorous health, suffering, however, severe pain from superficial ulceration of the cornea.

They resided in different sections of the city, and by coincidence each received his prescription in the same afternoon.

Twenty-four hours after commencing the use of the medicine, Dr. Holmes found the patients had been experiencing for about six hours slight effects of the poison. As the local pain had somewhat subsided, the instillation was continued. At the end of twenty-four hours more, the symptoms had become alarming to the friends. The face of each patient was red; the throat dry and voice husky; there was excessive restlessness and tossing, in one case with a peculiar, spasmodic kicking of the legs. The delirium was wild, but without any of the peculiar and ludicrous actions described by some authors.

The pulse was hard and full, beating about 100 per minute. The urine was abundant, but apparently not excessive in quantity.

After discontinuing the remedy twenty-four hours, the constitutional symptoms had disappeared.

There was no evidence that the patients had used by mistake more of the atropine than had been directed, or that there was any unusual size of the lachrymal puncta to promote the passage of the poison through the nasal ducts.

Dr. Holmes stated that he had prescribed atropine in a very large number of cases, but had never before observed its peculiar effects so marked in so short a time.

He had never deemed it necessary to give adults warning except in regard to the danger of taking it by mistake internally.

To avoid such unpleasant effects of atropine, it had been proposed by Liebreich to place a minute pair of spring forceps upon a fold of the lower lid in order to produce eversion of the punctum from the globe. This would cause the superfluous fluid to flow upon the cheek, instead of the mucous membrane of the ducts and fauces.

The report of these cases induced considerable discussion in reference to the use of belladonna.

Dr. Ross had injected subcutaneously with great benefit a drop of a solution of atropine, a grain to the drachm, for the relief of facial neuralgia in a male patient, 71 years of age. The next day, however, although the pain was relieved, there was great general nervous excitement with involuntary spasmodic motion of the legs.

Dr. Davis had observed marked constitutional effects from three doses of one-fiftieth of a grain of atropine each, given every three hours; also marked but not alarming effects from two subcutaneous injections of one seventy-fifth of a grain of atropine, given at an interval of an hour.

Dr. Davis related a case, in which a druggist's clerk, by mistake, had substituted solid extract for the tincture of belladonna in a prescription written for a child three years old. In this way a grain and a half of solid extract was administered. The effects of the first dose was so alarming, that it was not repeated; so alarming, in fact, that, although Dr. Davis saw the child at once, there was every indication of a fatal result. After very minute and frequent doses of morphine for six hours, the child became perfectly quiet and out of danger.

Dr. Davis had found minute and frequent doses of atropine very efficient in overcoming the unpleasant effects of morphine.

Dr. Ingals stated that he had seen decided constitutional effects in a child, who had taken three drops of the fluid extract of belladonna.

Dr. Nelson had observed the dilatation of the pupil to continue ten days after two instillations on the conjunctiva of two drops each of a solution of atropine, two grains to the ounce.

SELECTED ARTICLES.

THE TREATMENT OF

CERTAIN FUNCTIONAL AND ORGANIC AFFECTIONS OF THE NERVOUS SYSTEM,

BEING REMARKS MADE BY INVITATION BEFORE THE AMERICAN MEDICAL ASSOCIATION AT THE LATE MEETING HELD IN BALTIMORE,

By PROF. C. E. BROWN-SEQUARD, M. D., F. R. S., etc., of New York.

I propose, gentlemen, to offer a few remarks which shall bear more particularly upon certain improvements which have been made within the last twenty or thirty years in the treatment of nervous affections. In introducing this subject I can only refer to the great influence which a proper knowledge of the reflex phenomena has exerted upon an accurate appreciation of the causes which are at work in producing both functional and organic affections. I will not have time to discuss the philosophy of reflex action in its relations to nervous phenomena, but will simply remark that most of the facts which I am about to present fully establish the importance of the knowledge that all morbid manifestations may be due to a reflex influence. I will only allude, in passing, to one or two facts in connexion with this part of my subject, which would be observable in the relation of cause and effect by the most casual observer. The fact that a wound of a superficial part of the body produces tetanus, is a well known circumstance, and in itself is a sufficient *a priori* evidence that the cause of that nervous affection may proceed from a reflex influence. Again, the fact that epilepsy is induced in some instances by the pressure of a bullet upon a branch or the trunk of a nerve, and is as quickly and effectually cured by the removal of the missile is a very patent argument in favor of the theory. I do not think it necessary to multiply examples; but will make the statement that in almost all nervous affections, whether functional or organic, the cause is very often a reflex influence. For instance, a marked congestion of the spinal cord, or of the brain itself, can very frequently be traced to a peripheric irritation, as its starting-point. Let a cold current of air be applied to a part of the body that may be warm,

the nerves of that particular part are irritated thereby, the irritation is transmitted to the brain or spinal cord, and congestion is the result. A full knowledge of the frequent production of nervous affections by a peripheric irritation, gives us a very important indication for treatment, which must necessarily consist in the removal of the cause of irritation, whatever it may be. If we can trace a congestion to cold applied to any particular part of the body, we must take the necessary means to counteract the bad influence which it has exerted upon the nervous centres by remedies applied directly to the starting-point of irritation. For instance, if the nervous symptoms can be traced to the immersion of the feet in cold water, we must direct our applications to these extremities; we must induce a counter-irritation of those parts. By this intelligent direction of our therapeutic means, we accomplish a great deal, and may even by the simplest remedies arrest what may seem to be, and if neglected may certainly become, a very serious disease.

After these few remarks, I come to another very frequent cause of nervous affections. This is also of very great importance to consider. Any alteration in the secretion of a gland, no matter how unimportant that organ may seem to be for the preservation of our health, may be the cause of a nervous complaint. I can give illustrations of this, were it not patent to the minds of every one that such is the case. In connexion with this point, I cannot urge upon you too strongly the necessity in every case of nervous affections of looking carefully after the condition of every organ of the body, and assuring yourselves, if possible, that no peripheric irritation exists. Such an irritation might be found to reside in an old cicatrix which has been healed twenty years, and in which not even pain is felt.

I pass now to consider a great many means of treatment which are of importance in nervous complaints.

Pressure on the Carotid for Congestion of the Brain.—I will first speak of pressure upon the carotid as a means which has been employed against headache, against congestion, and against inflammation of the brain. This treatment was employed in the view, that by stopping circulation in that blood-vessel, the amount of blood in the brain was diminished. But this is far

from being the case. Whatever apparent good effect there may be from pressure in the region of the carotid, it has nothing to do in diminishing the supply of blood to the brain; but it is chiefly a pressure on the cervical sympathetic nerve which brings about the result; for that nerve being irritated by such pressure, causes a contraction of the blood-vessels of the brain.

Ligature of the Carotid.—The carotid has been tied for the cure of epilepsy; but this is a most irrational treatment, and I hope it will eventually be abandoned. It has been employed not only in epilepsy, but in diseases of the brain, which, in common with that affection, were supposed to depend on congestion of the brain. But in this case, as in the one in which simple pressure on the carotid is used, the congestion is diminished by some irritation of the sympathetic. If surgery should be bold enough to divide this nerve (which, perhaps, may be before long,) a great advance might be made in the treatment of epilepsy. The loss of consciousness depends altogether, in the beginning of the attack, on the contraction of the blood-vessels of the cerebral lobes, producing in these parts of the brain a state of syncope. The loss of consciousness which occurs in the *petit mal*, might be avoided altogether by the extirpation of an inch or an inch and a half of the cervical sympathetic nerve. The teachings of physiology and pathology, and particularly the results of my experiments on animals rendered epileptic, conclusively show that there can be no chance for a loss of consciousness after this operation is performed.

Cauterization of the Urethra.—Lallemand, who has written an excellent work on seminal losses, and the nervous complaints due to this genital affection, has employed against it a plan of treatment which consists in cauterization of the urethra. There is a much better mode of treatment, I think, for these complaints than the severe and rather dangerous one of cauterization, which not rarely causes a stricture. The means which I have found most available are: Pressure on the prostate, whereby the congestive state of that organ is diminished. The same thing will happen when ice or a very cold douche is applied to the perineum. I have also often obtained a considerable amelioration, and sometimes a cure, by a medicinal and hygienic plan of treat-

ment, consisting in the use of atropine, the ergot of rye, large doses of the bromide of potassium, with tonics. Atropine and the bromide of potassium have a specific action on the prostate and the genital organs; and so great is that power with the bromide, that it will reduce the pain and erection in chordee, and diminish if not abolish sexual desire. But the dose of the bromide, to produce these effects, must be a large one; for instance, a drachm twice a day. There is no danger in using it in such quantities, and the only effect which may be troublesome is that the patient may get very sleepy.

Tracheotomy, etc.—Tracheotomy has been proposed by Marshall Hall against epilepsy. But the spasm of the glottis for which the operation is advised is only a symptom—a result, and not the cause of epilepsy. It is, then, only of service as a temporary amelioration. I need not say here that the theory of Marshall Hall in reference to epilepsy is, in my opinion, entirely wrong. However, it may be well to be prepared to operate if an emergency should arise. Dr. Lalor, of Dublin, has ascertained that food is sometimes thrown from the stomach into the larynx and trachea in fits of epilepsy, causing death by asphyxia. Tracheotomy would, of course, be useful in such cases.

Extirpation of the Clitoris.—Extirpation of the clitoris for nervous affections is an operation which cannot be approved of on rational grounds. Mr. Baker Brown has been in the habit of treating several kinds of nervous affections by this method; but I cannot agree with him in thinking that it is a proper treatment, when there is not a manifest connexion between a morbid state of that organ and the nervous disorders. You know that onanism is a very frequent cause of nervous affections in women as well as men. There are cases on record, and others not published, in which that operation has not been attended either with a good effect upon the nervous trouble or upon the loathsome habit. I know several cases of this kind. That which I have found more serviceable when moral advice has failed, is the production of a sore close upon one of the parts handled, so that every attempt at friction will cause a pain compelling the patient to abstain from it. The sore must be kept

open until the general health is sufficiently restored to allow the moral influences to be brought to bear upon the patient with good effect.

Extirpation of the Testicle.—As regards ablation of the testicles, I cannot speak in words of disapproval strong enough. It seems to be not only a very irrational but a barbarous procedure, and it was certainly so in most of the cases in which this operation was performed against epilepsy.

Section of Nerves.—One of the modes of treatment which have been found of great importance in the treatment of epilepsy, tetanus, and other complaints which are due to an irritation of nerves by a wound, a burn, etc., consists in the section of irritated nerves, at some distance above the wound or burn—*i. e.*, between the point of irritation and the nervous centre.

Actual Cautery.—In regard to the use of actual cautery in nervous affections, functional and organic, I am sorry to say that this method of treatment, which is perhaps too much employed in France, is too much neglected in England and in this country. I have often applied the white-hot iron to the head of patients in the coma of apoplexy, of cerebritis, of uræmia, or of epilepsy, with almost always the good effect of freer breathing. Many patients have been aroused from coma by that means alone, and not a few have recovered, whose recovery was at least partly due to that mode of treatment. The application of the hot iron to the nape of the neck has been often found of signal service, in cases of any functional nervous complaint in which it may be found necessary to change the nutrition at the base of the brain. I hardly need say that the actual cautery is one of the best, if not the best means of treatment of neuralgia and rheumatic pains.

Application of Ice.—Opposite to this, but acting in the same way, is the local application of ice to the spine and various parts of the body. This plan of treatment has also been too much neglected. It may be extremely beneficial in a number of affections. Dr. Chapman, of London, has published some cases in which the beneficial results of the application of ice to the spine in certain nervous complaints have been very apparent. These cases are not so complete as one would wish to have them;

still I have no doubt that the principle upon which he founds his plan of treatment is a tenable one. I have no doubt also, that ice to the spine in certain kinds of epilepsy, particularly in those cases where there is evidence of a spinal irritation, will be of real benefit.

Circular Blisters and Ligatures.—I come now to another method of treatment, which, according to the results of my own practice, is of considerable importance. When I began to have charge of an immense number of paralytics and epileptics at the National Hospital in London, I found that, in most of the cases in which ligatures are useful against epilepsy, they act in quite a different way than that which is generally admitted. I ascertained that it is the irritation of the nerves of the skin, and not a pretended obstacle to the passage of the so-called aura, which, in cases of an aura of centric origin, produces the good effects of preventing a fit or diminishing its intensity. I found that pinching, pricking, or a blow, acted almost as well as a ligature; and these facts, and others that I have not time to mention, led me to admit that an irritation of the nerves of the skin in limbs can produce a very favorable change in the state of the base of the brain, and also in the spinal cord. This view made me adopt a plan of treatment which has proved useful, not only in epilepsy, but in hysteria, in chorea, in trembling palsy, and in cases of congestion or inflammation of the base of the brain, or in cerebral meninges. This plan consists in the application of blisters, one inch in width, all round a limb attacked with either paralysis, trembling, jerks, or pain, due to a congestion or inflammation of the nervous centres or their meninges. These circular blisters produce an irritation of cutaneous nerves through which a favorable change takes place in the circulation or nutrition of the nervous centres. This mode of treatment is generally much more useful than the application of counter-irritation to the head, the nape of the neck, or the spine.

Errhines.—There is another means of treatment which I cannot pass by without a notice, and that is the use of errhines. I am convinced that these are not employed as often as they ought to be. These medicaments are of special utility in cases of nervous affections (epilepsy, headache, congestion of the

brain) attended with sensations of fulness, heaviness, tightness, etc., in the frontal sinuses.

Within the last few years subcutaneous injections of morphine, quinine, etc., have been very much employed. I will only say that this plan of treatment is a most invaluable one, and that it is absolutely free from any great danger if carefully employed. There is frequently, however, *some* danger, and medical men should be prepared for it. I do not mean to say that life is compromised by the treatment, but that phenomena will sometimes occur which may seriously compromise the reputation of the practitioner. I usually employ morphia, together with opium, in cases in which it seems useful to inject narcotics. The doses are from one-third to one-half of a grain of the sulphate of morphine, with from the one-sixtieth to the one-fortieth of a grain of the sulphate of atropine. I have for a good many years injected these narcotic salts together. Not that I believe that they are antagonistical in the way that many suppose. I deny that a dose of morphine, able to destroy life, can be neutralized by any quantity of atropine. I have an opinion contrary to authorities in this respect. I have given a dose, by injection, to a dog sufficient to kill him in a certain time, and have immediately afterwards injected the prescribed amount of atropine to counteract it. I have seen most of the symptoms caused by the first alkaloid diminish in consequence of the action of the last injection, but death took place nearly at the same time as if I had not injected the atropine. My experiments prove that these narcotic remedies and poisons are not antagonistic as regards their deleterious, toxic, or poisonous effects, however much they are antagonistic as regards some of their effects on the nervous centres, the eyes, etc. They should be employed together, according to my notion, on account of their real antagonism, and also on account of the addition of the good effects of each of them to those of the other, against pain particularly.

I now pass to consider other remedies. The bromide of potassium is an invaluable remedy. The dose for epilepsy should be a scruple three times a day. The best time to give it is when the stomach is empty, so as to allow of its rapid absorp-

tion. But I have found that, in certain forms of epilepsy, the use of bromide of potassium alone is not so good as when it is combined with other remedies. The best remedies to be used, together with this salt, are the iodide of potassium and the bromide of ammonium. The iodide of potassium will not do much alone against epilepsy, unless it be due to syphilis, and then the dose must be extremely large; but if the bromide of potassium be added to a small dose of the iodide, the good effect of these two salts employed together will be increased, especially in cases of epilepsy allied with, or due to, a congestion in the base of the brain, manifesting itself either by a slight hemiplegia, or by other symptoms. These two remedies are very different in their action, although there are many physicians who believe that they are almost identical. Bromide of potassium produces anæsthesia of the throat and larynx, dilatation of the pupil, deafness, anæsthesia of the urethra, and a diminution of the sexual power, etc.; but none of these symptoms are produced by the iodide of potassium. On the other hand, the iodide of potassium will sometimes cure syphilis, while the bromide of potassium has no power whatever over that disease.

I said bromide of ammonium should be sometimes employed together with the bromide of potassium. There are cases of epilepsy in which the combined use of these remedies is of great value. In cases where there is suspicion of the existence of congestion of the base of the brain, and still more of a congestion of the spinal cord, or its meninges, the bromide of ammonium will give a decidedly greater effectiveness to the bromide of potassium.

The bromide of ammonium is a very valuable remedy in whooping-cough, as first shown by Dr. Gibb and Dr. Harley, of London. As I have named that disease, I may here mention that there are other modes of treatment of more value. One of these modes is by the use of atropine. But if you employ it you have to be by your patient, as it is necessary to give it in doses large enough to produce delirium, and to keep up that condition for three days, except at night. In the evening you may give morphine, or what is better, codeine, or narceine. This will procure a quiet night's rest. You must watch your

patient to see that the delirium does not go further than it ought to. If you can get the consent of the parents to allow the use of this remedy, you may be able to cure your patient at the end of three days, as I did in a bad case of whooping-cough in my own child. I need not say that the bronchitis, allied with the whoop, will persist some time after the cessation of this nervous phenomenon. It will, however, be very hard work to get the consent of the parents if you tell them beforehand how the medicine will act; but some may give you a chance.

I will now say a few words on another remedy, which is too little employed; I mean the chloride of barium. I have given it in one case of trembling palsy, with a very gratifying result. This is the only case of that affection in which I have obtained a complete cure. In some of the other cases in which I have tried that remedy, there was a marked amelioration of the symptoms. The dose of this remedy must be a large one—from half a grain to one grain three times a day. This is a dose which, according to writers on toxicology, might be sufficient to kill outright. I can only say that these writers are quite wrong. This remedy, in very large doses, has lately been employed with success in several cases of tetanus.

Codeine and narceine are remedies which I have used a great deal; more especially is this the case with the former. Codeine is a most valuable remedy to give a quiet night's rest. In this connexion I must refer again to the bromide of potassium as an invaluable remedy to produce sleep in persons who are wakeful on account of severe anxiety, grief, or any other moral cause. The dose too of this medicine must be pretty large. About four or five P. M. as much as thirty or forty grains, and another dose equally as large by eight or nine in the same evening.

I will only say a few words on two or three other remedies. In nervous affections, due to congestion of the kidneys, or of the ovaries, I have found the use of gallic acid in four or five grain doses, six times a day, of singular efficacy. It is much better to give it in frequently repeated doses than otherwise, as it is less apt to disturb the stomach.

The nitrate of silver has been considered a very excellent remedy in the treatment of that newly-studied affection, the

locomotor ataxy. The great expectations that were entertained of its efficacy have not, however, been realized, and it has been found that instead of curing the majority of the cases, it has sometimes only succeeded in blackening the skin. It is, however, when used properly, of some value; but it should not be used longer than a month at a time, for by allowing an intermission, say of a month, it has pretty much as good an effect as when taken without interruption, and does not alter the color of the skin.

In conclusion, gentlemen, allow me to make this single remark, that in the treatment of nervous affections, you cannot search too diligently for their cause in all the organs of the body; and that far from the study being an exclusive and especial one, it is necessary, before undertaking to practise with chances of success in this department of the medical art, to have a knowledge of the diseases of every organ. The best specialist for nervous affections is he who joins to a specially extensive knowledge of all the forms and varieties of nervous complaints, a thorough acquaintance with all the general and special diseases and disorders of every part of the human frame in themselves, and particularly in their relations with the nervous system.—*N. Y. Medical Record.*

Early Viability of the Fœtus—an Extraordinary Case. Reported by WM. KENNEDY, M. D., New Orleans.

In 1845, Mrs. A. B., primipara, suffered, as she thought, during one whole night with colic. I saw her next morning, when I recognized that she was in labor, which had progressed so far that I made no attempt to arrest it. Within a half hour after my arrival she gave birth to a fœtus. It was not more than eight inches long, and was as red as a piece of raw beef. True dermoid tissue could not be said to be organized, its general investiture being so delicate a membrane, as it were, that the eye could look through it on the tissues beneath. The eyes were still closed; there was no trace of cilia or supercilia; its chest was about two inches broad; the arms and legs were very slender, and the toes and fingers devoid of any traces of nails. The head was about the size of a small orange. The

respiration was so feeble as scarcely to be perecptible, and not a sound was uttered after birth. I was almost afraid to handle it, as I could not divest myself of the idea that the slightest pressure of the fingers would thrust them into the soft, red, jelly-like mass before me. When I raised it from the couch, and laid it in the length of my left hand, the head lay on the convexity of my flexed fingers, the chest and breech in the palm, and the feet reached almost an inch beyond the wrist.

I wrapped it carefully in batting, and carefully attended to maintaining a proper surrounding temperature. It was fed drop by drop with sugar and water every four or five minutes, and later, when the mother could supply it with milk, half a teaspoonful was given every half hour or hour. Within three weeks after birth it had a mild attack of trismus. During treatment I gave it frequent baths in a tumbler. The period of infancy was one of the most stormy I ever saw. Hydrocephalus, cholera-infantum, measles, diarrhœa, are some of the many affections it suffered from during that time, and up to three or four years. When last I saw him he was a fine healthy boy of twelve years, and gave promise of a vigorous manhood.

I should have been pleased to have furnished a more accurate account of this case. The importance of the subject demands it. But my note-book, carefully preserved during many years of arduous practice, and which I hoped, in my declining days, to make useful to my brethren, through the medium of the press, has, like my library and every vestige of household material, passed from my possession under the ruthless hand of destructive war.

The report of this case is a matter of the highest importance, both in a humanitarian and medico-legal point of view; and that which gives additional value to the report is its entire reliability. No man stands higher in his profession in this community than Dr. Kennedy, and his observations may be relied on as strictly accurate. It is certainly a matter for real regret, that Dr. K. should have lost his complete notes of the case, as it would have been most truly interesting to have watched the progress of development, from week to week, of so young a fœtus thrown into the external world. We consider this case as the most important one on record, when we consider the reliability of the author of the report, the exceeding youth of the fœtus, the very limited development, the stormy history of its infantile life, and the successful issue. In a humanitarian

point of view, it must interest the scientific obstetrician, as it must force on him a sense of the imperative duty of refraining from unnecessary destruction of fœtal life, even at so early a period; as well as the duty of carefully attending to every fœtus born with evidences of vitality under his hands. We have an abiding conviction, that not a few fœtal lives are sacrificed in every community through neglect of the indications thus made manifest.

Again, in a medico-legal point of view, if the fact of viability, and consequent claim to inheritance of titles or estates, shall have always heretofore been denied the fœtus of less than six months, this case would seem to set aside all prejudice on the subject. The law, in such cases, can justly take cognizance only of authentic facts, and cannot arbitrarily fix a certain age of viability. In Wharton and Stille's Medical Jurisprudence, we find accounts of a fœtus born on the one hundred and seventy-ninth day of gestation, living to the age of four months, and then dying of epidemic disease; of another, born on the one hundred and fifty-eighth day of gestation, weighing one pound, measuring eleven inches in length, and being still alive three years after; and another born at twenty-seven weeks and living still eleven years after; and another, thought to be not more than five months, as, three weeks after birth, it weighed only one pound thirteen ounces, measuring between eleven and thirteen inches, and surviving its birth one year and nine months.

Dr. Kennedy's case takes precedence of all these, as the description of its length and general development go to indicate clearly that it could not have been more than one hundred and forty to one hundred and forty-five days old at birth.

The Napoleonic Code would seem to fix legal viability at one hundred and forty-eight days, but with the light of Dr. Kennedy's case before us, should the reputation of a woman, or the hereditary rights of her child, be compromised under the force of such arbitrary dicta? Or will a husband be justified in sus pecting the integrity of his wife, or in seeking divorce from her, on such grounds? D. W. B.

—*South. Jour. of the Med. Sciences*, Aug., 1866.

EDITORIAL.

BOOK NOTICES.

Clinical Lectures by Prof. A. von Graefe, on Amblyopia and Amaurosis, and the Extraction of Cataract. Translated by H. DERBY, M. D., Surgeon to Massachusetts Charitable Eye and Ear Infirmary, etc., etc.

Modern science has devised such improved means of investigating diseases of the eye, that our profession is now able to determine with great accuracy a diagnosis, where formerly all was doubtful.

The terms amblyopia and amaurosis, for instance, but a few years since, embraced several diseases, which can now be easily recognized as entirely distinct affections.

These advances in accuracy of diagnosis are not only of great interest to the specialist as a matter of pure science, but often of great practical advantage to the patient. We are able to give a favorable prognosis and to benefit our patients in cases which were considered as hopeless by the older oculists.

On the other hand, we are able with more confidence than ever to declare certain cases as positively incurable, thus removing painful suspense, and saving the patient the perplexity of seeking relief in vain.

The ophthalmoscope discloses with absolute certainty many abnormal conditions of the vitreous humor, of the choroid, of the retina and optic nerve, which were all formerly described more or less loosely as amaurosis.

The labors of Donders in resuming and extending the investigations of Airy and Young, have also eliminated from the so-called amaurotic diseases, another abnormal condition—astigmatism, or certain irregularities of curvature in the surface of the cornea or lens, by which rays of light are so diffracted, that the images on the retina are always more or less indistinct. Such eyes were regarded as amblyopic, and proved incurable by any means known a few years since. Now by the simple use of cylindrical glasses, patients with this defect, are enabled to see distinctly.

The intimate connection of the nerves of vision with the

brain, has interested those who are devoting their labors to general nervous affections, in investigating with the ophthalmoscope the abnormal conditions of the retina and optic nerve.

Although something has been accomplished in this direction, there are many isolated, unexplained facts as regards the relation of certain symptoms in affections of the optic nerve with the brain and spinal cord.

We may expect that future investigations will solve many of these mysteries.

Dr. Derby has performed a valuable service for the profession in thus presenting to the American reader a good translation of these most admirable clinical lectures of von Graefe.

Our readers generally, who have not been particularly interested in ophthalmology, have but a faint idea, we believe, of the genius of von Graefe, of the extent of his labors, and the facilities he possesses for observation.

The number of the important operations of every kind on the eye which he has performed, might seem almost incredible to men in general practice.

From his enormous practice, both private and in hospital, he has a vast amount of material which he appropriates for the benefit of science, constantly employing as his assistants in his investigations men thoroughly educated, each in his own department of pathology, ophthalmoscopy and microscopy.

His extraordinary talents as a student of science, and as an observer of the phenomena of disease in an almost innumerable aggregate of cases, has made him one of the most remarkable men in the medical profession.

It is most worthy of notice, that while von Graefe has for several years devoted his talents to ophthalmology, he so devoted himself in his early career to the whole range of medical science, that he was capable, as has been stated, of acting as a proficient specialist in any department of medicine and surgery.

The first twenty-four pages of this little work contain a discussion of the general subject of amaurosis. These are followed by a most critical analysis of eight interesting cases.

We would especially commend to our readers, in any way interested in the subject of cataract, the series of clinical re-

marks on the extraction of cataract which form the conclusion of this pamphlet, and which, "as a specimen of clear, precise and comprehensive clinical instruction, the translator believes to be without a parallel in ophthalmic literature."

We can extract but a few passages on amaurosis, giving in full the report of the first case.

Experience has abundantly shown these forms which tend to progressive blindness to be characterized by an early narrowing of the field of vision, a preponderating loss of sensibility of the peripheric portions of the retina. It is, *a priori*, readily imaginable that, in a progressing atrophy of the nervous elements, those regions should first suffer which are most remote from the nutritive and functional centre, and that thus the extinction of power should be successive and, to a certain extent, centripetal. Inasmuch, therefore, as extreme significance is to be attached to a defective or diminished peripheric vision, our methods of diagnosticating the same must be as perfect as possible. Ordinary daylight is insufficient to detect slight defects in making a general examination of the periphery of the field of vision. This must rather be conducted in a darkened room where light proceeds from but a single source. Where absolute accuracy is desirable, the "graduated lamp" may be used; the diaphragm being set at 100, and a black paper without gloss being held before the patient (of course at a fixed distance.) The limits of the field of vision are ascertained by means of white balls, set on a black rod and gradually removed from the point of fixation. To ascertain the angle of distinction in eccentric vision, the balls may be placed on the two extremities of a blackened pair of compasses.

Especially interesting is the connection of progressive amaurosis with paralysis and mental alienation, and thus with gray regeneration of the spinal cord. It is well known that amaurotic affections not infrequently supervene on disordered states of the intellect; but sufficient stress has not been laid upon the fact that a large number of those attacked with amaurosis, who were in perfect possession of their faculties when first affected, are subsequently the victims of dementia. While, therefore, amaurosis may not infrequently be looked upon as a premonitory symptom of mental derangement, the reverse is almost without exception the case in gray degeneration of the spinal cord. Characteristic symptoms of the spinal affection (impairment of sensibility) have become settled before the advent of the amaurotic affection. This may be explained by the anatomical fact that the course of the degeneration is from the vertebral column

towards the interior of the skull. Of all the many cases of spinal amaurosis (forming, as they do, some thirty per cent. of the graver forms of progressive amaurosis) which came under my observation, I can recollect but two instances where the disease had progressed in an opposite direction. In the one the amaurotic long preceded the spinal affection, the patient having been entirely blind five years before the first eccentric pains, followed by the usual signs of tabes, made their appearance. In the other, the amaurotic affection had also lasted several years, but at the time of occurrence of the spinal disease there remained some perception of light in one eye.

Graefe's opinion regarding the use of tobacco as a cause of amaurosis is worthy of consideration.

The fact which cannot be denied, that amblyopia affects men more frequently than women, the proportion with us being about 4 to 1, has seemed to justify the conclusion that smoking is one of the chief causes; many of the other conditions, however, are especially applicable to men, and, in my opinion, excessive smoking must be regarded, in the majority of cases, as simply among the active causes.

CASE I. *Curative form of Congestive Amblyopia, with Normal Field of Vision.*

Florian M., railway employee, æt. 49, of healthy appearance, cheeks and extremity of nose of rather a venous redness, comes on account of impaired vision of both eyes. This has been creeping on for the last twenty months; at first very gradually, during the last four months, however, has perceptibly increased. The functional examination shows that the acuteness of vision (tried by average daylight) has fallen in the right eye to $\frac{1}{8}$, in the left to $\frac{1}{7}$. The periphery of the field of vision (examined by softened lamplight) proves to be *absolutely normal*, and in accordance with this there can be found neither interruptions, misty spots, nor breaks in the acuteness of eccentric vision. Inspection discovers nothing abnormal about the exterior or interior of the eye; indeed, in spite of the already considerable duration of the disease, the papilla retains its delicate red, semi-transparent color.

Its nasal segment is appreciably more reddened than the temporal, owing to the greater number of small vessels and the thicker layer of nerve-fibre in the first direction. To this may be added that the inner is not so sharply defined as the outer edge of the choroid, still a careful inspection reveals the whole contour. Such a condition of the papilla may be regarded as entirely physiological, provided nothing abnormal be found in

the vessels and the tissue. It is more or less marked, according to natural varieties in the optic nerve, and shows best generally in a case of physiological excavation. The larger veins are well filled, but are not abnormally tortuous, either as regards their own axis or the plane of the retina. We cannot, then, consider this as a symptom of disease; all the less, in fact, because the patient's complexion bears evidence of habitual venous engorgement.

An investigation of the case shows that the patient has for a long time indulged moderately in brandy, drank large quantities of beer, smoked considerably, and had his rest broken by the duties of his calling. He has suffered from neither digestive nor cerebral disturbance, and enjoyed good health. The result of the examination of the organs of respiration and circulation, the pelvic viscera, the skin and the urine is negative.

As regards the *prognosis* of this case, we may venture on an opinion in every respect favorable. In the first place, a progressive blindness is not to be feared in the least; for in spite of the long continuance of the disease, the boundaries of the field of vision prove to be entirely normal. But we may even speak confidently of improvement and restoration of vision, for (1) the continuity of the field of vision is entirely uninterrupted; it is only an affair of general diminution of sensitiveness, no indication of a central scotoma being present; (2) the appearance of the optic papilla is unchanged; notwithstanding the difficulty has lasted two years, there is no trace of atrophic degeneration; (3) in the habits of life of the patient, we find palpable causes, amenable to therapeutic influences, and of a kind that experience teaches us may produce derangements capable, to a certain extent, of removal.

It would be a difficult task to accurately explain the *nature* of this affection. No signs of active cerebral congestion exist. The venous redness of the face and the predisposing causes render probable a so-called passive congestion; this expression, however, conveys but a limited amount of information. Suppose the case to be one of an inundation of the central nervous structures with venous blood, or of a want of rapidity in the movement and change of the blood itself, or let there be a diminished activity of function on account of the blood being overloaded with alcoholic and narcotic substances—every one of these suppositions would be explained on the ground of "passive congestion of the brain." The only general and satisfactory use of this term is, therefore, in cases where, there being no signs of active congestion, the functional as well as the nutritive activity of the cerebral centre of the optic nerve has

been reduced by influences springing from the source alluded to and acting through the circulation.

How is the *cure* of this case to be effected? First, of course, by paying a proper regard to its cause. The use of alcoholic beverages must be given up, that of tobacco reduced to a minimum, regularity in diet and sleep insisted on. Not infrequently is this course alone sufficient to cause a gradual retrogression of the symptoms in cases of this form of amblyopia. Experience teaches us, however, that there are more efficient means of securing and hastening a favorable result. As regards local depletion, a rapid evacuation of the blood is here of special importance. I was some time since led by this to appreciate the application of the leech of Heurteloup in the treatment of congestive amblyopia, and the method based on this has found much favor with the profession.

A good deal depends here on the manner of application. If the operator to whom we commit the task is not competent to fill a cylinder in a few minutes, the particular advantage of this method is lost. The application must be made in the evening, so as to give the full benefit of the night's rest. It is, moreover, desirable, in many cases that the patient should preserve perfect quiet the next day and remain in a dark room. As the importance of this precaution in such case depends on a careful consideration of the individual circumstances, it is best to regard it as a general rule. It is of consequence on account of the excitability of the cerebral circulation, or—if preferred—of the vaso-motory nerves. In cases where this is considerable, each application is followed by a period of excitement, characterized by derangements of sensibility of every kind, sometimes by subjective appearances of light, and even by some diminution of acuteness of vision. This period of "reaction," lasting only in exceptional cases more than a day, should be prepared for by entire bodily rest and a strict seclusion from light. This state, moreover, is least marked in cases of amblyopia arising from passive cerebral congestion, and most so in certain affections of the choroid; the period of rest, therefore, is less indispensable in the former case than in the latter. From two to four ounces of blood should be taken at each application. And this should be repeated at intervals of four, six or eight days, according to the constitution of the patient and the duration of the period of reaction. A careful examination of the acuteness of vision instituted directly prior to and two days after the application (the period of reaction being thus passed) will decide the propriety of repetition. Where the acuteness of vision has not been affected by two, at the most by three applications, they

should be omitted. But even where a perceptible effect is noticed, I do not advise a too frequent repetition in cases of passive cerebral congestion, although of course the state of the constitution must influence the decision in individual cases. For it has been ascertained that those cases which evince improvement after the first three or four bloodlettings, do better under diaphoretics than by a continuance of the abstraction of blood; and it is our duty—other things being equal—to give the first named the preference as a less severe course.

Be it said, in this connection, that the Heurteloup leech, rendering, as it does, most valuable service in congestive amblyopia and chronic affections of the choroid, is by no means as good as the natural one in the treatment of the different forms of ophthalmia. It is here that we derive more advantage from a prolonged suction and a continuous flow of blood than from the rapidity with which it is lost. Although warmly recommending the Heurteloup leech in cases of amblyopia with passive cerebral congestion, I am willing to admit that some cases derive more benefit from other measures. This is especially the fact when the excitability of the circulation is extremely pronounced. Here the period of reaction is seen to be abnormally lengthened and indisposed to yield to the desired remission. In such cases a decidedly better result is often obtained from cupping in the neck, in hæmorrhoidal affections from leeches to the anus, and in disorders of menstruation from cupping on the inside of the thighs; indeed, under these circumstances the Heurteloup leech may even increase the disturbance and harm the case. The question so often raised in practice as to whether the removal of blood shall take place from the immediate vicinity or at some distance from the affected part, depends in a measure on the method employed, and especially on the degree of excitability, and considerable caution must be used in answering the question in the first sense. A common mistake in cases of ophthalmia is to place the leeches nearer the eye than consorts with the sensitiveness of this organ and the surrounding structures. Further individual circumstances may sometimes induce us to employ other applications in preference to the Heurteloup leech on the temple, as when the disease seems, for example, to be connected with the cessation of habitual epistaxis, or of a hæmorrhoidal flow, etc.

Our diaphoretic treatment was principally (in imitation of many older practitioners) carried out by means of the decoction of Zittmann, not because any specific effect is to be attributed to separate ingredients of this complex draught, but because experience has shown it to be an excellent diaphoretic of proved

worth. The strong decoction, warmed, was therefore given at an early hour to the patient in bed, and its action on the skin assisted by means of woolen coverings and afterwards by elder-tea, while on the other hand no special restrictions with regard to diet, as is generally the custom when this preparation is used, were imposed on the patient; a walk, too, in the afternoon was allowed when the weather was favorable. Of late we have been more sparing in the employment of the decoction of Zittmann, having learned to recognize a thoroughly invaluable therapeutic agent in well-appointed Roman baths.

My first inducement to employ Roman baths in cases of amblyopia with passive cerebral congestion was furnished me by a patient who had been but moderately benefited by a course of decoction of Zittmann, and entirely cured himself of his amblyopia by remaining in the warm boiling-room of a sugar-factory the heat being nearly 40°, (122° Fahrenheit.) Great advantages as the Roman baths possess in most of these cases over the Russian baths, they have, of course, their contra-indications, among them the more active states of congestion, and especially cardiac and renal affections, an apoplectic tendency and undue excitability of the circulation.

[These "Roman baths" are known in this country as Turkish baths, and differ from the Russian in the employment of dry heat instead of vapor.—TRANSLATOR.]*

The patient was again presented at the clinique four weeks after the commencement of his treatment. His course of life had been regulated and the Heurteloup leech applied three times, in consequence of which his acuteness of vision had successively increased from $\frac{1}{6}$ on one side and $\frac{1}{7}$ on the other to $\frac{1}{4}$ on each. Following this, a Roman bath had been taken every three days. No result followed the first bath, except a headache which lasted twelve hours, owing to the fact that he had not remained long enough in the sweating room and had been disturbed by the application of a cold douche at the wrong time. The next baths, in the administration of which these points were attended to, produced an excellent result, the acuteness of vision having risen, after the filth had been taken, on the right to $\frac{2}{3}$, on the left to more than $\frac{1}{2}$. A speedy and entire recovery is therefore no longer doubtful.

Von Graefe remarks, in conclusion, as follows. Recovery does not follow as rapidly in all these cases of amblyopia as in the present. If, however, appropriate treatment succeeds in once causing the affection to take such a turn that the acute-

* During a recent visit at the East, we found medical men employing these baths with much advantage, where ordinary hot baths were usually recommended.—ED.

ness of vision begins to increase, we may reckon with nearly entire confidence on a gradual and almost spontaneous improvement, provided the cause of the difficulty continues to be avoided. The attempt must not, therefore, be made to perfect the result by continuing the employment of vigorous measures during a prescribed time, but rather, after the first blow has been administered to the disease, it should be left to itself awhile, after which the former treatment may be resumed. Thus the entire amount of previous vision may often be seen to return in the space of several months or more. On the other hand, a strong tendency to relapse may be manifesed, when owing to a faltering resolution or the pressure of circumstances the patients again come within the influence of the previous exciting cause of the disease; in fact, such relapses may exhibit a paralytic tendency, differing from the previously mild form, (as in the case of amblyopia potatorum.) This teaches us how necessary it is to lay particular stress on the manner of life of such patients and regulate their labor. Finally, be it remarked that while we very frequently employ the course that has here proved itself efficacious, it should by no means be regarded as the exclusive method of treatment in such forms of the affection. No cases need more individual study than those of amblyopia, and the physician who after a single and hasty survey undertakes to give such patients advice available for some time to come, commits a serious fault. The derangements in the circulation which are here concerned may spring from the most varied sources, and it is both perilous and narrow-minded to deduce them by preference from some particular organic affection, from the liver, for example, or the alimentary canal, or some irregular course of life. Abdominal disorders, it is true, often play a principal part among the causes, and in accordance with this view, we often see good effects resulting from the use of mineral springs, such as Marienbad, Kissingen, Homburg, and in suitable cases particularly Carlsbad; as a general thing, however—thanks to the prevailing tendency—the functions of the abdominal viscera occupy too exclusively the attention of the physician. The weighty functions of the skin and kidneys, so important in their effect on amblyopic affections, are among those seriously neglected through this preference. While the regularity and amount of the fæcal evacuations are anxiously dwelt upon, these principal regulators of the circulation are hardly regarded, as being of minor importance. Even the ways of life, from which but too often proceed the accumulated causes of derangement of the circulation, are often but carelessly scanned by the physician, and as a matter of course made light of by

the patient. If the sleep be not particularly disturbed, little is said about it, and yet good and regular sleep affords the most grateful refreshment to the unceasingly active nerve of vision. To be here a successful physician, one must examine with extreme care and weigh the result with foresight and impartiality.

Cholera: Facts and Conclusions as to its Nature, Prevention and Treatment. By HENRY HARTSHORNE, A. M., M. D., etc., etc. Philadelphia: J. B. Lippincott & Co. 1866.

This is a pamphlet written by a man of positive convictions. We like to read the works of such men, even if compelled to dissent from their views. But in the present case there is much to commend. The author is a decided anti-contagionist, and is skeptical with reference to the portability of the cause of cholera. He does not believe that the disease is "a disorder simply of the stomach and bowels;" he sums up his whole theory of the nature of the disease in one brief aphorism—"Cholera is, then, I say, a poison-spasm; a ganglionic tetanus."

The causation of the disease is argued with much ingenuity. The conclusion finally reached is "that the cause of cholera is a (yet undiscovered) protozoon, or primal organism, of extreme individual minuteness; which, on entering the human body, affects it as an organic poison." Whatever name may be attached to this "primal organism," the fact of an entity which produces the disease can hardly be questioned. We cannot believe in what are called purely *dynamic causes* for such a train of symptoms as are presented by the cholera patient.

Our author disbelieves in the efficacy of quarantine, and insists "that Sanitary Police includes the sum total of available measures for the prevention of cholera in any place."

Respecting the great question of treatment, his remarks are generally consistent with his theory of the nature and the cause of the disease. To bleed he fears, and from calomel he would wholly abstain. The eliminative treatment, which has been advocated by Dr. Johnson, of London, finds no favor. But in his remarks upon the eliminative *theory*, he is neither fair nor consistent. Because vomiting and purging are eliminative methods, it does not follow that elimination is dangerous or

undesirable. Nor is it, on the other hand, true that the advocates of an eliminative treatment are advocates of emetics and cathartics in cholera. While the other natural channels of elimination are obstructed, to neglect them for the administration of castor oil and mustard, is to do what was called by Prof. Gilman, "looking at the patient through a pin-hole." No method of treatment which ignores the necessity of restoring healthy *excretion* as well as secretion, can ever attain the highest success in the treatment of cholera.

The use of ice along the spine is by our author still regarded as merely experimental. Sulphuric acid receives a *quasi* recommendation, "being so potent a destroyer of everything organic." Opium in large doses is rejected, as it should be, and the doctor proclaims his adhesion to the method of "treatment by anti-spasmodics and mild stimulants, in small doses at short intervals; with ice, and external frictions." During the *rice-water* stage, he uses the following recipe:

℞ Chloroform, tr. opii, spts. camphor, spts. ammon. aromat., aa. f ʒj ss; creosot., gtt. iij; ol. cinnam., gtt. viij; spts. vin. gall. f ʒij—M. Dissolve a teaspoonful of this in a wine glassful of ice-water, and give of that two teaspoonfuls every five minutes; followed each time by a lump of ice. Better even than this we like the recipe of Dr. Aitken: ℞ Ol. anisi, ol. cajeput., ol. juniperi, acid. sulph. aromat., aa. f ʒ ss.; ether sulph., f ℥ ss; tr. cinnam., f ℥ ij.—M. Dose, ten drops in a tablespoonful of ice-water every fifteen minutes. With the first two doses, give some preparation of opium and camphor. During the stage of collapse, nothing is definitely recommended by Dr. H., unless it be the use of belladonna or atropine, "as an antagonist of vascular spasm."

Such, then, is a brief outline of this timely little pamphlet. Its perusal will injure no one, and if the consideration of its arguments can prevent that wholesale use of opiates and astringents which is still so popular in certain quarters, it will not have failed of its purpose.

We have received a very complete Illustrated Catalogue of Surgical Instruments of Geo. Tiemann & Co.'s manufacture, issued by their agents, Messrs. Bliss & Sharp, 144 Lake street, who will furnish them to the profession on application.

Shakspeare's Delineations of Insanity, Imbecility and Suicide. By A. O. KELLOGG, M. D., Assistant Physician, State Lunatic Asylum, Utica, N. Y. Hurd & Houghton, N. Y. 1866.

In this little volume are collected a number of essays which were published by their author in the *American Journal of Insanity*, at various intervals between 1859 and 1864. As indicated by the title-page, the morbid characters of Shakspeare are classified as insane, imbecile and suicidal. The victims of insanity are Lear, Macbeth, Lady Macbeth, Hamlet, Ophelia, Jaques and Cordelia. The imbeciles are Bottom, Dogberry, Elbow, Shallow, Malvolio, Launce, Caliban, good Bardolph and his two friends, Nym and Pistol. The suicide stands alone—Othello.

Dr. Kellogg has produced a very readable book. His familiarity with the varied phases of mental derangement enables him to speak with authority in criticism of character. One cannot fail to admire the wonderful genius of the great dramatist, as it is made to appear with additional brightness the more closely it is examined. Shakspeare probably thought not whether his heroes and princes were to be counted, labelled and ranked with the sane or the insane. Simple truth was all for which he cared. He put on paper what he saw; and the difference between other singers and their king consisted only in the clearness of his sight. Shakspeare was the seer from whom nothing was hid. He saw, and described as he saw, every varying shade of character; so that the beholder of his work is impressed only with its ease, its truth and its universality. Other men see dimly or superficially; and their pictures please by halves. "Yes—that is very good; people sometimes act as the author describes; so they appeared to his mind's eye; that passage is very natural," etc., etc., is the best praise that can be awarded to the majority of authors. It is only when we sit down to the works of the master that the scales drop from our eyes, and all the treasures of heaven and earth are opened to our gaze, and we think no more of the methods by which such glory becomes visible. Other writers give us images and sketches of life—Shakspeare gives us Life itself.

For sale by S. C. Griggs & Co., 41 Lake st., Chicago.

Medical Diagnosis. By J. M. DaCosta, M. D. Philadelphia: J. B. Lippincott & Co. 1866.

We are glad to see this new edition of an invaluable work. The student who wishes to learn the art of diagnosis, without which the science of therapeutics is almost useless, will here find a sure guide. The work has been thoroughly revised, and improved to correspond with the latest advances in the methods of detecting disease. The uses of the sphygmograph, the thermometer and the laryngoscope are fully detailed, while the latest discoveries of the neuropathists and the helminthologists are properly accredited. A more instructive volume cannot be put into the hands of the medical student. Its typographical execution is all that could be desired.

For sale by S. C. Griggs & Co., 41 Lake street, Chicago.

COUNTY HOSPITAL.

The Directors of the County Hospital deserve great credit for the successful and complete organization of the first and only public Charity Hospital of this city. The Institution is not only creditable to the management, but to our city and the entire Northwest, as in all respects it will bear favorable comparison with any similar charity on this continent.

The different departments are now in perfect order, fully equipped, and systematically conducted. The surgical department, as a field for clinical observation and study, is unsurpassed in the West. Since the organization of the Hospital, over twenty capital surgical operations have been performed by the attending surgeons. The lying-in department has also proven eminently successful. Two large wards have been appropriated to this service, and the department affords the very best facilities for the study of this specialty.

The medical department is always replete with every variety of disease. It presents a large field for the study of auscultation and percussion.

An opportunity for studying diseases of the eye is also afforded in the department appropriated to ophthalmic patients.

Recently the Directors have further added to the usefulness and completeness of the Institution by the establishment of an out-door department for the benefit of out-door patients. This is attended daily by the members of the Hospital staff. In addition to this, and to perfect the whole, a large and commodious dead house has been erected, affording good accommodation for post-mortem examinations. A pathological museum, which has already been commenced, contains some very interesting specimens.

We trust a new era has dawned in the medical culture of the Northwest. An opportunity for clinical instruction, for bedside observation and study, to the numerous students of this city, has been a desideratum greatly needed; and now that we have an hospital, so perfect and complete, affording an abundance of material, and every facility for a thorough clinical course, we hope those young men preparing to enter the profession will avail themselves of its advantages.

We will again remind our readers that the attending physicians give four regular clinics a week from October to August, and two a week during August and September. The clinical days are Tuesdays and Fridays, at 1½ o'clock P. M.

At the request of Surgeon General Barnes, we publish the following Memorandum for the information of persons desirous of entering the Medical Corps of the Army:

[*Extracts from Laws of the United States.*]

ACT OF CONGRESS *Approved* JULY, 1866.

SEC. 17. *And be it further enacted*, That the Medical Department of the Army shall hereafter consist of one Surgeon General * * * * One Assistant Surgeon General * * * * * One Chief Medical Purveyor and four Assistant Medical Purveyors * * * Sixty Surgeons, with the rank, pay and emoluments of Majors of Cavalry. One hundred and fifty Assistant Surgeons, with the rank, pay and emoluments of First Lieutenants of Cavalry, for the first three years service, and with the rank, pay and emoluments of Captains of Cavalry after three years service. * * * * and all the original vacancies in the grade of Assistant Surgeons shall be filled by selection by examination.

The number of vacancies now existing in the Medical Corps of the U. S. Army is sixty, forty-six of which are original vacancies created by the Act of Congress approved July 28, 1866, as quoted above.

All candidates for appointment in the Medical Corps, must apply to the Surgeon General, U. S. Army, for an invitation to appear before the Medical Examining Board. The application must be in the handwriting of the candidate, stating age and birthplace, and be accompanied by testimonials from Professors of the College in which he graduated, or from other Physicians of good repute. If the candidate has been in the Medical service of the Army during the war, the fact should be stated, together with his former rank, and time and place of service, and Testimonials as to qualifications and character from the Officers with whom he has served should also be forwarded.

Candidates must be graduates of some regular Medical College, proof of which must be submitted to the Board before examination.

The morals, habits, and physical and mental qualifications of each candidate will be subjects for careful examination by the Board, and a favorable report will not be made in any case in which there is a reasonable doubt.

The following will be the general plan of examination.

1. A short essay, either autobiographical or upon some professional subject—to be indicated by the Board.
2. Physical examination. This will be rigid, and each candidate will be required to certify "*that he labors under no mental or physical infirmity, nor disability of any kind, which can in any way interfere with the most efficient discharge of his duties in any climate.*"
3. Examination as to general aptitude and education.
4. Written examination on anatomy, physiology, hygiene, surgery and practice of medicine.
5. Oral examination on each of the above mentioned subjects, and also on obstetrics, general pathology, chemistry, toxicology, medical jurisprudence and materia medica.
6. Clinical examination, medical and surgical, at a hospital.
7. Performance of surgical operations on the cadaver.

The Board will deviate from this general plan whenever necessary, in such manner as they deem best to secure the interests of the service.

The Board will report the merits of the candidates in the several branches of the examination, and their relative merit in the whole, according to which, if vacancies exist within two years

thereafter, they will receive appointments and take rank in the Medical Corps.

An applicant failing at one examination, may be allowed a second after one year, but not a third.

No allowance will be made for the expenses of persons undergoing examination, as this is an indispensable prerequisite to appointment, but those who are approved and receive appointments, will be entitled to transportation on their obeying their first order.

The pay and emoluments of Surgeons and Assistant Surgeons are shown by the following table:

	Pay per month.	No. of rations per day.	Amount of rations per month.	SERVANTS.					Aggregate amount receivable.	Forage furnished for Horses when actually kept	
				No. for which pay is allowed.	Am't allowed for pay per month.	Am't allowed for clothing per m'th.	Am't allowed for rations per month.	Total amount allowed per month.		In time of war.	In time of peace
Assistant Surgeon, under 3 years' service	$53 33	4	$36	1	$16	$6 50	$9	$31 50	$120 83	2	2
Assistant Surgeon, over 3 years' service	70 00	4	36	1	16	6 50	9	31 50	137 50	3	2
Assistant Surgeon, over 10 years' service	70 00	8	72	1	16	6 50	9	31 50	175 50	3	2
Surgeon, under 10 years' service	80 00	4	36	2	32	18 00	18	68 00	179 00	4	2
Surgeon, over 10 years' service	80 00	8	72	2	32	18 00	18	68 00	215 00	4	2

In addition to the above, Surgeons and Assistant Surgeons are allowed an additional ration per day, after the termination of every five years' service.

Quarters and fuel, or commutation therefor, are also furnished Medical Officers.

JOS. K. BARNES,
Surgeon General, U. S. A.

Surgeon General's Office,
August 9th, 1866.

From a letter to a friend, we learn that Prof. BRAINARD has already engaged passage by the steamer which will sail from Havre on the 30th of August, and may be expected in Chicago the latter part of September.

THE

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ORIGINAL CONTRIBUTIONS.

Clinical Lectures on Diseases of the Eye. By E. L. HOLMES, M. D., Lecturer on Diseases of the Eye in Rush Medical College, and Surgeon to the Chicago Charitable Eye and Ear Infirmary.

THE MUSCLES OF THE EYE AND THEIR DISEASES.

GENTLEMEN,—The presence at the clinic to-day of a case of strabismus and of paralysis of the muscles supplied by the oculomotor nerves, following diphtheria, will be sufficient reason for taking in review what we have said from time to time regarding other similar cases and for extending our investigations of the diseases of the muscles.

It is scarcely necessary to dwell upon the general description of the muscles, for you have seen them demonstrated repeatedly in the dissecting room.

There are, however, a few points which are of particular importance, and yet are scarcely noticed in our text-books.

In commencing the study of this subject, you should be careful to fix in your minds the *exact position of the muscles in the orbit.* You can then more readily perceive the direction in which, by their contractions, their power is applied, and consequently the effect which each muscle exerts upon the globe.

On examining the orbits, you will observe that they are two

pyramidal-shaped cavities, situated in such a way, that the sides next to the nasal passages are parallel with each other. The sides next to the temples diverge from each other from behind forward.

The optic foramen, through which passes the optic nerve, and around which the four recti muscles, the superior oblique and the levator of the upper lid, have their origin, is at the posterior portion of each orbit and *near its nasal side.*

The internal rectus lies parallel with the nasal wall of the orbit and parallel with the internal rectus of the other side.

The external rectus, instead of passing directly forward from its origin, passes forward and slightly outward. The superior as well as the inferior rectus on each side passes forward from its origin and slightly *outward.*

With the eye looking directly forward, an imaginary line passed through the centre of the cornea and extended through the centre of the globe posteriorly, which line nearly corresponds to the visual axis, does not fall upon a central point between the origin of the superior and that of the inferior rectus but a little external to it.

This is an important point to bear in mind in studying the action of these two muscles.

The insertion of the four recti muscles in the sclerotic is from two and a half to three lines behind the periphery of the cornea. The insertion of the inferior rectus, according to Arlt, is a trifle nearer that of the internal than of the external recti. Or, in other words, the space between the inferior and external recti is less than between the inferior and external recti.

It may be a matter of interest to know, that these points have been most carefully studied by numerous dissections of the contents of *the orbit in a frozen state.*

Another important point is the fact, that the globes, in their normal state, rotate *in every direction upon their centres.* They *rotate*, and do not, as was once supposed, move bodily on the end of the optic nerve, as the head moves from side to side, or forward and backward on the neck.

As we are told in our anatomies, the superior and inferior recti rotate the cornea upward and downward respectively;

the internal and external rotate it inward or outward. A combination of either muscle of each of these pairs, acting with either muscle of the other pair, will turn the cornea obliquely either downward to the right or left, or upward to the right or left.

For distinct (single) vision with two eyes, it is necessary that both eyes move in the same direction, at the same time, and to the same extent.

To accomplish this, in looking downward with both eyes, the two inferior recti act; in looking upward, the two superior recti;—in looking to the left, the external rectus of the left eye and the internal rectus of the right eye, and *vice versa* in looking to the right.

It is one of the functions of the recti muscles, therefore, to direct the visual axes in any desired direction. These muscles are fully competent to accomplish this. But for distinct (single) vision with two eyes, one thing more is absolutely necessary, and that is, that, in all cases, corresponding portions of the two retinas retain their relative position.

I think you can the better comprehend this subject by imagining a line drawn horizontally across the cornea and extended through the globe, dividing it in two hemispheres—the upper and lower. This imaginary line may be called the horizontal great circle of the retina. If the eyes be fixed upon an object directly in front of them, and upon the same level with the centres of the pupils, the image of this object will be formed on the posterior part of the retina and on this horizontal great circle in each eye. Now if the tip of the finger be pressed upon the lower lid of one eye in such a way that the globe is rotated slightly downward, the anterior half of this circle will be depressed, while the posterior portion will be elevated. The image on the eye, thus rotated, will fall upon a point of the retina below this circle. You can therefore see that the image in each eye is on a point of the retina not corresponding with that of the other eye. The result of this is double vision, the two images appearing one above the other. Hence you see that when the visual axis of one eye is directed downwards, it is necessary that the other should also be de-

pressed to the same extent. The same is true of movements in every other direction.

If you will now suppose a line drawn *perpendicularly* through the centre of the cornea and extended through the globe, you divide the eye into two lateral hemispheres. This line is called the meridian of the globe or retina.

Single vision with two eyes requires that the meridians of the eyes should, in all cases, be parallel. If one is inclined to either side, the other must be inclined to the same extent and in the same direction. If the meridian of one should remain perpendicular and that of the other inclined, the image in the latter eye would be thrown on a portion of the retina not corresponding to that receiving the image on the other eye.

To maintain the meridians of both eyes parallel, there is required another pair of muscles—the oblique. The *direction* in which these muscles exert their force is from the posterior and outer toward the front and inner part of the orbit. The *effect* which these muscles will have on the globe will differ according as the direction differs, toward which the pupil (visual axis) is turned.

The attachments of these muscles are so far back on the sclerotic, that the general effect of the superior oblique is to direct the pupil downward and outward, and at the same time to incline the meridian of the globe toward the internal angle; of the inferior oblique, to turn the pupil upward and outward, and at the same time incline the meridian toward the external angle. When, however, the pupil is turned toward the external angle of the eye by the action of the external rectus, the oblique muscles have most influence in inclining the meridian and least influence in elevating or depressing the pupil, (visual axis.) On the other hand, when the pupil is turned toward the internal angle by the action of the internal rectus, the oblique muscles exert most influence in elevating or depressing the pupil and least in inclining the meridian.

This difference in the action of the oblique muscles will be better comprehended by recollecting that when the eye is directed inward, the visual axis is nearer in a line with the direction of the oblique muscles; hence, the superior can exert

most influence in depressing and the inferior most influence in elevating this axis.

But when the visual axis is directed outward, it is brought *across* the line in which the oblique muscles lie; hence, these muscles must act principally in rotating the globe on its visual axis.

Since the direction of the superior and inferior recti is forward and outward from their origin, it is evident that, when the pupil (visual axis) is turned to the external angle, these muscles will expend nearly all their force in *elevating* and *depressing* the pupil respectively. When, however, the pupil is turned towards the internal angle, they not only elevate and depress the pupil, but also tend to incline the meridian of the globe inward and outward respectively. This arises from the fact, that in the former case the visual axis is brought almost in an exact line with the course of these muscles; consequently, these muscles, with the globe in this position, have most influence in raising and depressing this axis. In the latter case, the visual axis is so turned as to lie across the line of direction of these muscles. In this position of the globe, the contraction of the inferior and superior recti muscle must tend also to incline the meridian outward or inward respectively, as well as elevate and depress the pupil, (visual angle.)

Now, with these explanations, I think you can understand that, while one eye is turned, for instance, inward and upward, its meridian is slightly inclined, through the action of the superior rectus, inward, and that while the other eye necessarily assumes a position with the pupil turned upward and outward, its meridian must be slightly inclined outward, to maintain its parallelism with the meridian of the other eye. This is accomplished by the inferior oblique slightly drawing the lower portion of the meridian toward the inner angle, thereby throwing its upper portion outward.

In looking downward and inward with one eye, the inferior rectus inclines the meridian outward, by drawing its lower portion toward the internal angle of the eye; at the same time one eye is turned in this direction, the other eye is turned downward and outward. To maintain the meridians of the two

eyes parallel, the superior oblique of the latter eye inclines the meridian toward the inner angle by drawing the upper portion of the meridian inward.

The action of the oblique muscles is incorrectly explained in almost every modern work on anatomy and physiology in the English language. It was formerly erroneously supposed that they served to keep the "meridians" of the eye perpendicular when the head was inclined from one shoulder to the other. Their true function is now known to be in connection with the other muscles, especially the inferior and superior recti muscles, *to keep the meridians* PARALLEL, *thereby maintaining corresponding portions of the two retinæ in their relative positions.*

It is still impossible, however, to state precisely what influence each muscle exerts in any particular motion of the eyes. Undoubtedly somewhat different combinations of muscles are employed by different individuals in looking in the same direction, just as different individuals employ different combinations of muscles in certain movements of the fingers and hands, as in playing musical instruments and in performing surgical operations. Hence the differences in gracefulness and pleasant expression in the motions of the eyes in different individuals.

Although certain passive expressions are influenced by the form of the eyes, the color of the iris, shape of the brows and cheeks and other features, the active emotions, such as anger, mental pain, and diffidence, are exhibited in the eyes by their peculiar movements.

In accommodating the eyes for near objects, the two internal recti muscles contract together to produce a greater degree of convergency in the visual axes. These muscles act, therefore, consensually with the ciliary muscle and the annular fibres of the iris in producing a greater degree of convexity of the crystalline lens and in contracting the pupil.

The muscles of the eye, like the muscles of the body, always possess a certain degree of tension upon their antagonists. The rotation of the globe is not produced by a contraction of one set of muscles and a *total relaxation* of the antagonists; but, as one set contracts the other *yields*, without losing its tonicity. The muscles might be compared to the reins in the hands of a

skilful driver guiding a spirited horse in a crowded street. Both reins are held firm, although each in turn has slightly the preponderance, as the horse is directed to one side of the street or the other.

The arteries of the muscles of the eye are branches of the ophthalmic artery.

The veins are branches of the ophthalmic and facial vein. These vessels are of almost no surgical importance.

Twins with One Placenta, Two Cords and One Set of Membranes. By S. A. FERRIN, of Montfort, Wisconsin.

I was called on July 9th to see Mrs. H——. Found her in bed, lying on her back, entirely unable to help herself. She seemed to be laboring under *general anasarca*, with great dyspnœa and excessive nervous irritability, dread of death, etc. She stated that she was nearly seven months pregnant, and that this bloating had commenced during the third month, and was constantly on the increase. Her bowels were constipated, and she experienced great difficulty in urinating, with constant desire to pass water. I administered, as a gentle laxative, pulv. rhei, ʒi, sodæ bi-carb. ʒi., M.—to be repeated in five hours if the bowels are not moved. Gave also, as an eliminant and diuretic: ℞ Potass. acetat. ʒiv., sp. nit. ether, ʒij., aquæ puræ, ℥ij. M. S. Take a teaspoonful every four hours.

The patient improved under the treatment. The dyspnœa lessened, and the bloating subsided somewhat. I continued the treatment at intervals for nearly three weeks.

August 16th. I was hastily summoned, and found her with all the previous symptoms much aggravated; with dyspnœa, great pain in the back, etc. I made a vaginal examination, and finding the parts much swollen, dry and irritable, with a hard and unyielding cervix, decided to induce premature labor. I ruptured the membranes for that purpose. After twelve hours the pains in the back were much increased; the os was dilated to about the size of a twenty-five cent piece. The pains increasing and the os dilating, I administered fl. ex. ergotæ, ʒi., and in twenty minutes repeated the dose.

The patient dropped into a quiet and easy slumber for forty minutes; after which, violent labor pains set in, and in fifteen minutes more a living child was born. After tying the cord, I attempted to remove the placenta, when, upon following it up, I found the head of another child presenting, which, in ten minutes more, was born, precisely similar in size, sex and features to the first, together with a single placenta, one amnion, one chorion and two cords. The placenta if anything was a little larger than ordinary, having the two cords attached equidistant from its circumference and about three and a half inches apart. Since delivery the anasarca is gradually subsiding, and the mother and her boys are doing well.

The Recent Epidemic of Cholera at the County Hospital. Chicago, 1866. Reported by Dr. T. BEVAN, Attending Physician to the Hospital.

Through the spring and summer months of the current year, until August 6th, our wards at the Hospital contained the usual groups of non-epidemic diseases common in a pauper hospital. The house records show the prevalent phlegmasiæ and acute attacks of other maladies, with a small per cent. of chronic and cachectic cases. No apparent tendency to intestinal troubles beyond an occasional dysentery, or some returned soldier with chronic diarrhœa, had occurred in the Institution to the date above noted, when a Mormon train, said to have some sick among them, abandoned a man named Christian Hansen, at the railroad depot. About noon of the 6th he was admitted to the Hospital, with the following history: He reports himself a native of Denmark, 41 years of age, sick for several days with diarrhœa. He is at present rational, and presents the following symptoms: Extremities very cold, clammy perspiration about the chest and face; capillary circulation very much impaired, giving the surface a dusky hue, especially marked on the lips, about the eyes, and on the hands and fingers; lividity of the roots of the nails; eyes sunk back into their sockets, with the eyeballs turned up, giving the countenance a ghastly appearance; pulse extinct in the radial, and barely perceptible in the

brachial artery, quick and feeble, (160 per minute;) absence of apex shock, and cardiac sounds feeble; respiration, 30 per minute, stridulous; tongue swollen and retracted; vomits frequently a thin, glairy serum, slightly tinged yellowish, and only three or four ounces at a time. The discharges from the bowels are involuntary, frequent and copious, of a serous character, mixed with whitish shreds, giving it the genuine "rice-water" appearance; cramps in the abdominal muscles and limbs; considerable tenderness over the abdomen; ankle joints firmly extended, not allowing flexion of the foot upon the leg; urine suppressed; great thirst, continually begging for iced water; shriveling of the integument, especially of the hands, feet and forearms; voice feeble and husky.

Treatment.—Bismuth. sub-nit. grs. vi., hydr. sub-mur. gr. i., every half hour until four powders are taken, then every hour. By injection, brandy, ℥i., carb. ammon. grs. v., every hour. Cataplasms of mustard to the spine and abdomen, with general artificial heat to the surface of the body. The man lived five hours, but exhibited no signs of reaction, presenting at last the most excellently marked cholera cyanosis everywhere on the surface.

This report is not made either in the interest of Messieurs, the contagionists, nor their antagonists, the non-contagionists. The subscriber, being a subject for conversion by credible evidence from either party that shall furnish satisfactory proofs, has to say this, however, as a truthful relation of patent facts, that, until noon of August 6th, no case of Asiatic cholera had been reported in Cook County during the year 1866. The case here reported was seen, besides myself, by two other members of the Hospital staff—Dr. R. G. Bogue, the Surgeon on duty, and my colleague, Dr. J. P. Ross, one of the medical attendants—as also by Dr. N. T. Quales, Resident Physician, and his assistants. The patient, Hansen, died between 4 and 5 o'clock the day of his admission, and the cholera question was laid on the table until—

Case II. Mrs. Dawson, aged 25 years, employed as nurse in the Hospital, who had been more or less subject to diarrhœa during the summer, was attacked with unaccustomed severity

in the forenoon of August 9th. She had a number of discharges during the morning, but feeling no pain, she gave but little attention to it. Towards noon the dejections recurred at shorter intervals, and she experienced considerable prostration. About 2 P. M., vomiting and cramps set in with great violence, with copious rice-water discharges from the bowels recurring every fifteen or twenty minutes. The surface of the body became cold; the capillary circulation was sluggish, giving the dusky color, so characteristic of the disease, to the skin of the face and extremities. Between the cramping paroxysms and vomiting, the voice was weak but cheerful; respiration, 35 per minute, and somewhat labored; pulse, 150 per minute, quick and feeble. The cramps were principally confined to the legs and feet, though they existed occasionally in the abdominal muscles. There was constant jactitation.

Treatment.—Bismuth. sub-nit. grs. iii., hydr. sub-mur. gr. i., morph. sulph. gr. ¼, every half hour, or, if the vomiting persisted, immediately after every ejection. Following each discharge from the bowels, give, as an injection, spts. vin. gall. ʒi. + tr. kino, ʒi. + tr. capsici, gtt. iij. Mustard sinapisms to the spine and abdomen. Jugs of hot water, wrapped in blankets, were placed about the body and limbs. This treatment was continued for some time, without any change or abatement of the symptoms. The cramps being very troublesome, morph. hydrochlor. gr. ⅓, was thrown into the right leg by hypodermic injection. Almost immediately the cramps were moderated; in half an hour they ceased entirely, and did not return for three hours. The vomiting, also, during this time, was less copious, frequent and violent. The amount of alvine discharge seemed also less, but the dejections were involuntary. The first hypodermic injection was given at half-past 3 o'clock P. M. At 8 o'clock P. M., the cramps were again quite violent. The vomiting, also, was more frequent, though the quantity ejected was small and the matter greenish in color. The discharges from the bowels continued to be involuntary, copious, and without any change in color or consistency. [The patient was of a plethoric lymphatic temperament, and lost altogether an enormous quantity of serum.] Another hypodermic injection of

morph. sulph. gr. ¼, was administered at 8.30 P. M., and the effect was similar to that of the first. At 10 o'clock P. M., the vomiting had ceased; the evacuations from the bowels were less frequent; pulse, 160, weak; respiration difficult; surface of the body cold, though she *complained of heat* and great thirst; the capillary circulation was very much impeded; the voice was husky and feeble; the patient was perfectly indifferent about her condition. I ordered bismuth. grs. vi., hydg. sub-mur. gr. ½, every hour. Capsicum to be added to the injection per rectum, and to be given once each hour, instead of after every discharge. She remained quiet until about 1 o'clock A. M. of the 10th, when the cramps returned with considerable severity. Again they were controlled by hypodermic injection of morph. sulph. gr. ¼. From 1 to 2 A. M. there was no vomiting nor purging from the bowels. Between 2 and 3 A. M. there were two small discharges. From 3 to 4 A. M., only one. From 4 to 7 A. M. she remained quiet, and had no injections. Her arms were now very cold, notwithstanding artificial heat and friction were being continually used. Between 7 and 8 A. M. she had one passage from the bowels of a greenish color; the cramps also returned, but were again controlled by hypodermic injection of morph. sulph. gr. ¼. About 8 o'clock there appeared to be a feeble attempt at reaction. She was now ordered brandy, ℥i. and gr. v. ammon. carb. every half hour, but the vital spark was too nearly out—reaction was not established. An injection of brandy and ammonia was administered, but without appreciable effect. She now sank rapidly. The pulse, which had been feebly distinguished at the wrist, became again imperceptible, faint, and 200 per minute in the brachial artery. She passed into coma with respirations 10 per minute, gradually growing less frequent. Death occurred at 11.10 A. M., August 10th. No *post mortem* examination.

Case III. William Schnastz, aged 45, native of Germany, had been in the Hospital since January 23d, under treatment for lupus, which had improved very much; ulceration less and general health good; bowels slightly constipated;—was attacked, August 9th, with diarrhœa, for which he was ordered plumbi acet. gr. iii., pulv. opii, gr. i., every four hours. August

10th, he was very much prostrated; during the night he had been on the vessel a number of times, and in the latter part of the night, vomiting, retching, with cramps in the abdomen and limbs. Discharges from the bowels now were more frequent and copious; rice-water stools; pulse extinct at the wrist; respiration labored.

Treatment.—Bismuth. sub-nit. grs. iv., hydg. sub-mur. gr. i., every half hour. Injection, per rectum, of brandy, ℥i., tinc. kino, ʒi., tinc. capsici. gtt. iv., after each discharge. Hypodermic injection of one-third gr. of morphine, often enough to control the cramps. August 11th, pulse perceptible in the radial artery, feeble, 130 per minute; respiration continues laborious; discharges from the bowels less frequent, but retaining their light color; vomits frequently; was ordered the following mixture: Acid. sulph. dil. ʒiii., tr. cardam. co. ʒii., aquæ, ℥iijss. M. Dose, a tablespoonful after every discharge. August 12–14, considerable vomiting and diarrhœa still continue, but the patient passes a healthy-looking urine in usual quantity. Ordered the following: Tincts. capsici, camph. and opii, aa. ʒii. M. Dose, gtt. xx. every three hours. August 16th, persistent vomiting and diarrhœa. Ordered a blister, 4 × 6, over epigastrium, and to take internally: Tannate of quinine, grs. ii., bismuth. sub-nit. grs. iv., every three hours. This controlled the vomiting and diarrhœa. The old cicatrices of the lupus are all ulcerating anew; appetite and general condition gradually improving.

Case IV. Frederick Ibson, aged 27, native of Denmark, admitted into the Hospital, August 6th, with dysentery, from which he was about recovered, occupying a bed next the one in which Case I. died, was attacked, August 10th, in the forenoon, with vomiting and cramps in the limbs and abdominal muscles, copious watery, light-colored discharges from the bowels. Intense thirst.

Treatment.—Bismuth. sub-nit. grs. iv., hydg. sub-mur. gr. i., morph. sulph. gr. $\frac{1}{8}$, every half hour. Brandy injection per rectum. This, with other treatment in the same general direction as the cases previously detailed, was continued; notwith-

standing which, the patient sank into collapse and expired, August 12th, at 7 o'clock A. M.

CASE V. Rosalie Reed, aged 28, native of Ireland, convalescing from parturition. During pregnancy, had suffered from albumenuria and general anasarca; after parturition, with ascites. Was attacked, August 11th, with vomiting and frequent diarrhœal discharges of a rice-water character, cramps in the limbs and abdominal muscles.

Treatment.—Hydg. sub-mur. grs. iii., piperin, grs. xii., morph. sulph. gr. i. Make into six powders, and give one every two hours. Hypodermic injection of morphine to control the cramps. Injection, per rectum, brandy, ℥i., ammon. carb. grs. v., every hour. August 12th, diarrhœa has ceased; vomiting continues; pulse, 140, feeble. Give bismuth. sub-nit. grs. vi., hydg. sub-mur. gr. ½, every hour; brandy, ℥ss. by injection; beef-tea. August 13th, convalescing.

CASE VI. Mary King, aged 50, native of Ireland, employed as washerwoman in the Hospital, taken, August 12th, with vomiting, cramp, and copious rice-water discharges from the bowels.

Treatment similar to Case V. Recovered.

CASE VII. Miss C——, aged 17, American, a member of the Warden's family, residing in the Hospital, was attacked, August 13th, with diarrhœa, for which she was ordered: Piperin, grs. ii., morph. sulph. gr. ⅙, hydg. sub-mur. gr. ½, every two hours. This, by noon, had nearly controlled the discharges from the bowels. About 2 P. M., however, cramps and vomiting set in, and soon became something *terrific*—utterly beyond description. It seemed as if every part of the organism capable of contraction was the subject of spasm, including the diaphragm and glottis, interrupting respiration, at times, from ten to fifteen seconds, and ending with a slow whistling inspiration of almost equal duration.

Treatment.—One-third of a grain of morphine was exhibited without the slightest effect. Temporary relief was obtained from the inhalation of chloroform, but this was very transient. About 7.30 P. M., the following was given by subcutaneous injection: Atropine sulph. gr. $\frac{1}{30}$, morph. sulph. gr. $\frac{1}{30}$, aq. distill.

gtt. x.—M. This was thrown under the skin of the leg. In twenty-five or thirty minutes the spasm had subsided, except in the glottis and diaphragm, which gradually relaxed, so that in a couple of hours the patient was comparatively relieved. The circulation for three hours after the injection was very irregular. At times, the pulse would be down to 60 per minute; at others, up to 200. Respiration stridulous, and at times slightly stertorous; capillary circulation impeded, giving blue color to the face and extremities. The temperature of the body was considerably increased. At 11.30 P. M., the circulation was more regular; the temperature was better; the dusky hue had subsided; respiration, also, was more regular. At 3 A. M., pulse 135 per minute; respiration, 30 per minute, regular; temperature about normal; patient rational, voice weak and hollow. She was now ordered bismuth. sub-nit. grs. iii., hydg. sub-mur. gr. i., every two hours. About 4 o'clock there was slight cramping of the limbs, and she took internally gr. $\frac{1}{4}$ of morphine, which gave only partial relief. At 6 o'clock the cramps were again quite violent. A foot-bath of mustard, as hot as could be borne, was now ordered. This relieved the spasm almost instantly. It was continued for twenty minutes, when the limbs were dried and wrapped in hot flannels. The patient seemed quite comfortable. We now attempted to administer small quantities of beef-tea, but it was rejected by the stomach. She retained, however, a little milk-punch. During the forenoon she complained of pain in the gluteal muscle of the left side, which was at first attributed to soreness from cramp, but continued examination established the existence of a large carbuncle; subsequently, others were developed on the scalp, shoulder, hip and heel. Poultices of flaxseed meal were applied to all excepting the one on the scalp, to which glycerine and morphine were applied. Towards evening the cramps returned with some violence, and the $\frac{1}{50}$ of a grain of atropine, with $\frac{1}{4}$ of a grain of morphine, were injected under the skin. This controlled the cramps very satisfactorily without the least unpleasant sensation on the part of the patient. She slept comfortably through the most of the night, awaking the following morning free from cramps, of which no renewal occurred. She

had a semi-fluid evacuation of whitish color, as if composed of decolorized fæces. August 15th, she was ordered sulphite sodæ grs. x., three times a day, with appropriate nourishment. The carbuncles all subsided, excepting the one on the hip, to which the following was applied: Plumbi iodid. ʒss., ext. opii, aquos, grs. xv., cerat. simp. ʒi., spread thick on lint, and apply under a warm poultice. This relieved the pain and effected resolution, so that from this time the patient rapidly convalesced, and is now (September 4th) quite well.

Case VIII. Sarah M——, aged 26, native of U. S., employed as nurse, in good health, of robust constitution, was attacked at nearly the same time and in like manner, and was similarly treated, as Case VII. The two cases were almost parallel, only in this last the cramps were more confined to the muscles of the back and limbs; there were no carbuncles, and the convalescence was more rapid.

Cases IX, X and XI. Peter Ewander, aged 50, native of Sweden, under treatment for varicose ulcer of the leg; Lewis Larson, aged 28, native of Denmark, convalescing from typhoid fever; and John Lee, aged 35, native of Germany, under treatment for primary syphilis,—were taken, August 13th, with cramp, diarrhœa and vomiting. Treatment similar to Cases V and VI. They all recovered.

Cases XII, XIII and XIV. Mary Carlisle, aged 26, native of Ireland, convalescing from parturition; Ann Good, aged 28, native of England, awaiting delivery in the lying-in ward; and Ann Layton, aged 30, native of Ireland,—were attacked, August 14th, with cramp, vomiting and diarrhœa; evacuations rice-watery, copious and frequent. Treatment similar to Cases V and VI. Recovered.

Case XV. G. C. Town, aged 32, American, was under treatment for typhoid fever, of moderate degree of intensity. August 14th, he was taken with copious rice-water diarrhœa discharges every fifteen minutes, soon becoming involuntary, and in a short time cramps and vomiting set in.

Treatment.—Piperin, grs. ii., morph. sulph. gr. ⅛, hydg. submur. gr. ½, every two hours; brandy and ammon. carb. per rectum after every discharge; artificial heat, mustard sinap-

isms, etc. In the evening he fell into collapse, and died the following day.

CASE XVI. A. C. Jensen, aged 28, native of Denmark, admitted, August 14th, with diarrhœa. August 15th, was taken with cramps and vomiting, discharges from bowels soon becoming frequent and rice-watery. Towards the evening he sank into collapse, and remained so until August 16th, at 5 o'clock P. M., when he expired. Treatment similar to Case XV. After collapse was established, strychnia and electricity were used freely, the former without effect. The latter, when applied along the spinal column continuously, would, after a time, establish momentarily, but perceptibly, a feeble pulsation in the radial artery at the wrist.

CASE XVII. A woman, about 35 years of age, admitted, August 16th, and was, at the time of admission, in a state of collapse, rice-water discharges, cramp in legs, stridulous respiration, pulse at the wrist extinct, skin cyanosed.

Treatment.—Stimulants, artificial heat, mustard sinapisms. No reaction. Died, August 17th.

CASE XVIII. Mary Rhodes, aged 23, American, had been in the Hospital some time with a tumor, supposed to be ovarian, was attacked, August 16th, with diarrhœa, cramp in the lower limbs, and, after a time, with violent vomiting.

Treatment.—Bismuth. sub-nit. grs. v., hydg. sub-mur. gr. i., every time she vomits. Hypodermic injections of atropine and morphine in the leg, which controlled the cramps without their return. The vomiting and diarrhœa continuing, brandy and tincture of kino were given by the rectum, with tr. capsici, after each discharge. She also continued the bismuth and calomel. In the evening she sank into collapse, and remained so until August 18th, when she expired at 6 o'clock P. M.

Post mortem.—The abdominal tumor was constituted by two ovarian abscesses, one on each side, the right being the largest, containing about twenty ounces of pus; the left was smaller, and about fourteen ounces. The tumors were sacculated, and the cavity of the uterus was found occluded and containing several ounces of pus.

CASE XIX. The last occurring in the house up to date. Samuel White, aged 26, admitted, August 17th, with dysentery, was attacked on the 18th with all the symptoms of Asiatic cholera, and died on the 20th in comatose collapse, after a treatment similar to that adopted in Case XVII.

From that time to the date of this communication no new cases of cholera have occurred in the Hospital. We have the usual diarrhœas and dysenteries of the season, but they manifest no disposition to become fatal or even serious.

Remarks.—In addition to the above cases, the Warden of the Hospital and the Resident Physician had distinctly marked choleraic attacks, but recovered. The precautions taken, and the prophylaxis employed, were isolation of the patients, disinfection of the discharges, cleanliness and free ventilation. The epidemic lasted fourteen days. The mortality among the paupers attacked was as 1 to 2, or 50 per cent.; while the mortality among the nurses and officials of the Hospital was as 1 to 5, or 20 per cent. So true is it that pestilential diseases ravage the poor, ill-fed and ill-clothed wrecks of humanity which find their way to a public hospital, that, but for the striking difference noted above, the fact would scarcely need mention; and here let me note the fact, that the cases which occurred among the better class of patients were as violent, if not *more violent*, than among the paupers, yet the former would react and convalesce, while the latter quickly succumbed.

September 15, 1866.

A New Remedy in Erysipelas. By H. B. WITHERS, M. D., of Rantoul, Ill.

In May, 1864, while observing the effects of iodide of potassium in a form of urticaria, occasioned by the administration of copaiba, I was led to suspect that it would prove a useful remedy in erysipelas. Acting upon this supposition, I immediately commenced giving it to a patient then under my care, in whose case all the vaunted specifics had most signally failed. She improved at once, and was speedily cured. Since that date, I have used it in about thirty cases with perfect success.

It arrests the disease in from twelve to thirty-six hours. I usually give ten grains every two hours, observing closely the effect. As soon as the disease begins to subside, I discontinue the medicine. I use no external application whatever, but simply keep the parts covered and moist. I do not recommend it as a specific, but wish merely to bring it to the notice of the profession as an exceedingly valuable medicine in this disease.

Aneurism of the Abdominal Aorta—Ligature of the Right Common Iliac. By A. J. BAXTER, M. D., Chicago, Illinois.

Very few of the operations of surgery have been attended with more uniformly fatal results than operations upon the large arteries, and evidence becomes peculiarly valuable when it can be applied to cases, determining whether or not an operation may be advisable.

CASE. Early in July last the patient first came under observation. He was a native of England, aged 37 years, of medium height, and quite muscular. His health had been uniformly good, until within three months. The patient stated that since that time a tumor had been growing in his abdomen, which materially interfered with his occupation as a laborer. It was found on examination to be a pulsating tumor, situated in the course of the abdominal aorta, and in the median line of the body, at least five inches in diameter. Auscultation developed the peculiar whirring sound, with the double character given it by the systolic and diastolic impulse of the heart. Palpation gave the true aneurismal thrill, and showed it to be elastic and bounding under pressure, with the pulsation plainly perceptible over the whole surface, and also that it was immovable from its position. When uniformly compressed, it could evidently be partially emptied of its contents, but immediately returned to its usual size when the pressure was removed. Pressure on the aorta above the tumor greatly moderated the force of its pulsation; pressure on the distal side had no such effect.

From these and other symptoms of varied importance, and after repeated examinations had left not the smallest room for doubt, it was decided to be aneurism of the abdominal aorta.

It was subsequently ascertained that he had been treated by compression over the tumor, but with no good effect. The only symptom not directly connected with the tumor itself was, that the circulation in the left lower limb was greatly reduced in force, from which was inferred that the left common iliac was either partially or wholly occluded and involved in the tumor itself, which subsequently proved to be true.

Before deciding upon an operation, the following considerations presented themselves:

1st. That the aneurism would prove fatal if left without operation.

2d. That compression had been tried without avail.

3d. That an operation afforded some chance of escaping a fatal result.

The danger accompanying the operation was fully explained, the patient fully comprehending and accepting the alternative of the operation being performed.

In considering what operation was adapted to this particular case, of course the Hunterian was wholly out of the question. The operation with the ligature on the distal side of the tumor has been practiced for more than seventy years, and has been followed by good results. That modification of it called "Wardrop's Operation" was performed, which consists of ligating one of the main branches of the diseased artery, but in reality it was what is called "Brasdor's Operation," as one of the common iliacs being closed, the ligation of the other would be essentially "Brasdor's Operation," although considered anatomically it would be Wardrop's.

The only preparation deemed necessary for the patient was a few days' rest with light diet, and to have his bowels well evacuated the day before the operation. It was decided to perform it on Sunday, 22d July. The following medical gentlemen assisted during the operation: Prof. Andrews, Chicago Medical College; Drs. McClellan, Macdonald, W. C. Lyman, Edwards, S. J. Jones and Manheimer, of this city, and Dr. W. B. Slayter, Surgeon of the City Hospital, Halifax, N. S.; also, a Committee of the St. George's Society, to which the patient belonged.

Chloroform being administered to full anæsthesia, the usual incision for this operation was made through the skin, and the abdominal muscles were successively divided down to the transversalis fascia, which was carefully cut through, and the peritoneum and ureter pushed aside, disclosing the tumor. There was little difficulty in separating the artery from the vein and nerves, and passing the ligature from without inwards. The subsequent steps of the operation are too unimportant to detail here. After the patient had recovered from his anæsthesia, he was placed in bed and the limb enveloped in cotton, to preserve the temperature. A moderate dose of morphine was administered.

On visiting the patient later in the day, pulsation in the tumor was sensibly diminished, and the temperature of the limb had not sensibly changed. Some light broth was given to the patient, and an opiate for the night, and he was left in the care of his friends. Pulsation continued to diminish in the tumor till at the end of thirty-eight hours it was wholly imperceptible; at the same time, circulation in the right limb having been interrupted by the ligature, was being rapidly restored through the various anastomoses, pulsation and a normal temperature being re-established.

At the end of the second day there was slight tympanites, which passed away in another day, leaving everything favorable to a good result, as the various functions of the body were normally performed.

Everything being thus favorable, a good result was anticipated, but such was not to be the case.

On Thursday, four days after the operation, some morphia was prescribed in powders of one-half grain each, one to be given at night, and repeated if necessary. Through the culpable negligence, disobedience and ignorance of the person in charge of the patient for the time, they were given repeatedly, in the absence of the physician, till fatal narcotism was produced. Every effort made by the physicians who were summoned proved unavailing, and he died from narcotic poisoning, and not as a consequence of the operation.

SELECTED ARTICLES.

Cholera on Blackwell's Island.—The following account of the epidemic in this locality, by Prof. Hamilton, will be read with interest.

No. 64 MADISON AVENUE,
NEW YORK, Friday, Aug. 10, 1866.

E. Harris, M. D., Corresponding Secretary, M. B. H.:

SIR: The first case of cholera occurred in the Workhouse on the 28th of July; the last case on the 6th of August. The epidemic continued, therefore, nine days, during which period, of about 800 inmates, 123 died. I do not mention one case reported on the 8th of August, because, as I understand, the person was admitted only the night before; I do not think the disease was contracted in the Workhouse.

You know the building very well. It is admirably constructed for the purposes for which it is designed, and, so far as my observation extends, it is always perfectly clean. Until now, the inmates have been as healthy as this class of people are usually found to be.

The explanation of the rapid propagation and fatality of the disease after it had once gained admission, was believed to be confinement and crowding. It was observed that the cholera was for several days exclusively among the women. The women had the smallest apartments, were most crowded in their cells, and, with few exceptions, were employed within the building in close contact with each other during the day. The men were employed mostly in the quarries, out doors.

On Wednesday, when the epidemic was at its height, the first of August, I gave my pledge to the Board of Commissioners and to Mr. Schultz, President of the Board of Health, in your presence, that I would drive the cholera from the Workhouse in from three to five days. I said this in no spirit of boasting, but in simple reliance on the well-known and established laws of Hygiene. The Commissioners executed literally and promptly every order which was given by the Committee.

The epidemic began to decline from the day they were fully carried out, and on Monday last the pledge was redeemed. The following is a summary of the sanitary means adopted:

The inmates were distributed as far as the vacant places in the building would permit; the cell doors were left open at night; the night-buckets were supplied with disinfectants and left outside; the women's cooking rooms were converted into hospital wards, and the women were kept out of doors from morning until night; corn meal and molasses were taken from

the diet table; coffee, tea and vegetables were added; at night each inmate was required to take whisky one ounce, water three ounces, tincture of capsicum fifteen drops. [These people are our city vagrants, and probably are habitually intemperate.] A variety of disinfectants were employed freely and constantly in every vessel and closet which received the excreta, even the excreta from the stomach were disinfected immediately after they were received into a vessel or fell upon the floor; stoves were placed in each hospital ward to insure a draft; all windows were kept open night and day; the clothing taken from the cholera patients was sent directly to the boilers; a ward was established for patients with the diarrhœa, and the value of this measure is shown by the fact that of the large number received into this ward only one died. It was difficult, however, to persuade these poor creatures to report themselves at this stage of the disease.

From the Workhouse the cholera has spread to every other building on the Island, except, I think, to the "Madhouse," the pavilion attached to the Male Almshouse and the Fever Pavilion. In none, however, has it proved so fatal as in the Workhouse.

The same sanitary measures have been adopted, with slight modifications, in each department, but they cannot be applied with so much vigor to the Lunatic Asylum, the Almshouse, or the General Hospital. These buildings are all crowded, and the inmates cannot be scattered or turned out of doors; consequently, the cholera remains among them, but in a greatly mitigated form. In the Penitentiary it remained but two days.

Connected with the Almshouse are two well-constructed pavilions, lying side by side, separated only by a few feet and a brick wall 10 or 12 feet high. One is occupied by feeble old men, the other by the same class of old women. The only point of difference which I can discover is, that at the time of the outbreak of the cholera, the male pavilion contained only 62 persons, while the female contained 99. In the first there has not been one case of cholera, in the second 31 have died.

Of 14 house-physicians and surgeons employed in these several buildings, some of whom have been in constant attendance upon the sick, not one has suffered from the epidemic.

Very respectfully yours,

FRANK H. HAMILTON, M. D.

—*N. Y. Med. Rec.*

Professor Charles T. Chandler, of the Columbia College School of Mines, is appointed Professor of Chemistry in the New York College of Pharmacy.

Prevention of Cholera in New York.—We quote the following interesting statements from Prof. A. Clark's Lectures on Cholera, recently published in the *Medical Record:*

One discovery, growing out of theory to be sure, but itself worth more than all theories, has been strikingly confirmed in numerous instances the present year—the power of certain chemicals, called disinfectants, aided by the removal of filth, to stop the progress of cholera in limited localities, as a house or portion of a street, and by inference in all houses and streets. It is difficult, perhaps impossible, to trace relations between individual cases in a large city; but once more we have the fact that cholera did not appear in New York till after infected vessels had arrived in our harbor. If we can trust the newspaper reports, the disease broke out among the troops on Hart's Island, Governor's Island, and on a transport carrying soldiers to Tybee Island, only after sending to these places, and by this ship, recruits newly arrived in emigrant vessels; but wherever it has appeared within the jurisdiction of the Board of Health, out of public institutions, it has been met with a promptness and vigor not unexpected from such men as constitute that Board and deserving the highest praise. For three and a half months there have been scattered cases, and a few times small groups of cases occurring here; but I believe I announce the literal truth when I say that it has been promptly driven out of every house it has entered. The officers of the Board are ready at all hours, with their disinfectants distributed in wagons, horses harnessed, and medical officers in waiting, to drive to and disinfect any and every house where the disease appears. It has been thus systematically pursued from its very first occurrence to this moment. It has not been finally hunted down, and probably will not be till near winter, because the disease is rapidly increasing in the commercial towns of Europe and also in the interior districts of Germany, from which emigrants are daily arriving. In the month of May it is reported that 40,000 emigrants were landed in New York. Notwithstanding the vigilance of the quarantine officers, some of these will carry cholera with them, either by protracted incubation, or unreported diarrhœa, or in their unpurified baggage, and it will break out anew among us. The present indications are that deaths from cholera on Manhattan Island during the year will not exceed 500, while the deaths from ordinary causes will be as heretofore 22,000 or more. This low mortality is due to the unwearied and successful efforts of the Board of Health to expel it from every new lodgment it makes, to purify the city,

and admonish citizens of their personal and domestic obligations. Up to August 17th, I am officially informed, excluding the islands in the East River, the deaths from cholera in New York have been only 247.

Remedies for Diarrhœa.—We proceed, as we promised, to give a comparative view of the remedies for bowel disorder. In so doing we go on the positive, not on the negative plan. That is to say, if practitioners of experience report that any given class of remedies proves efficacious in their hands, we accept the fact; and if other practitioners report good results from an opposite class of remedies, we accept that fact also. And we take liberty to use the solution of this seeming paradox which common sense and experience furnish us with. That is to say, we assume what we know to be true, that the cases in which opposite remedies are respectively used belong to opposite classes of cases, or else that divers remedies may attain the same end in the same class of cases by opposite routes.

The remedies which we propose to consider—shortly and in the space of one essay—were enumerated in a late article, and we give them again, in alphabetical order.

Acids, Alkalis and Absorbents, Antiseptics, Astringents, Calomel, Meat, Opiates, Purgatives, Stimulants.

The questions we have in view are these: Supposing a man has to treat a crowd of patients affected with diarrhœa, what is the best general, shall we say routine, remedy? What, if used indiscriminately, will do good in the greatest number, and harm in the least number of cases? And on the other hand, supposing time and circumstances allow of a discriminate and individual application of remedies, what are the cases for which each remedy is best adapted?

We must also say, that we are discussing remedies for diarrhœa, and possibly for cholerine (this one word *cholerine* is better than *choleraic diarrhœa*), not for cholera, *i. e.*, the stage of collapse; further that the absolute repose and warmth of bed is a means of safety which it is difficult to over-estimate; and besides, as our correspondent said, in his account of a visit to Amiens, it seems possible that a patient who is *cured* of diarrhœa shall yet die of cholera.

1. The acids are the more worthy of trial by those who have never tried them, inasmuch as they seem at first to run counter to all our English opinions and traditions. Yet lemon juice and salt is the old and popular remedy in Italy and the East for diarrhœa. Traces also of treatment by acids are found in the writings of some practical physicians of the last century. But,

so far as we know, the person who first brought them into vogue in England was an obscure practitioner named Coleby, in Bermondsey, who gained a reputation and a fortune by his use of dilute nitric acid in large doses in the premonitory diarrhœa during the cholera epidemic of 1832. Since that time the sulphuric acid has come into vogue, and its use has been advocated by many practitioners, as Mr. Boddington and Mr. Tucker, and it has now become so popular that it cannot be considered as the speciality of any one. Any acid appears to answer—sulphuric, nitric, phosphoric, hydrochloric, tartaric or citric. Mr. Tucker pointed out, in 1854, the value of *cider*, with its malic, acetic, and tannic acids; but the sulphuric seems really the best and most convenient. The right way of using an acid for diarrhœa is not to give it in any measured dose, but to cause it to be mixed with water, sweetened and flavored with ginger—say half a drachm of dilute sulphuric acid, two drachms of syrup, and a half a tumbler of cold water. The patient may dilute it and sweeten it to the precise point he likes, and be told to drink it freely in as great a quantity as he likes; but few care for more than three drachms in the twenty-four hours. The effect of the remedy seems direct and positive. It stops diarrhœa, quells pain, puts an end to the generation of flatulence, and leaves the patient well. Most positively there is nothing purgative in its action. It is suited for atonic diarrhœa, with clean tongue, in every stage. Where diarrhœa has been going on, leaving the belly puffy with griping pains and flatulence, the acid acts like a charm. Again, in the cases of diarrhœa which effect over-fed people—with foul tongue, yellow eye, and loaded liver (as we assume)—the acid is a good remedy by itself, but better if employed as an adjunct to a dose of calomel. Moreover, as a prophylactic, as Dr. MacCormac has shown, it is of great value. The minute that a man says he can't eat through the heat, and lives upon beer, he should be advised to take some mineral acid in bitter infusion. It will not be taken for granted that there are no cases in which it fails. In some it fails, apparently without reason; and in cases where there is a red, irritable tongue, it should not be tried. But there is one almost certain indication—that if the patient likes it, it is almost sure to cure him; if he dislikes it, it will almost surely do him no good. The acids, moreover, are adapted for all ages and conditions, from the infant at the breast with chronic, or atonic, or serous diarrhœa, to the veteran in his second childhood. The Elixir of Vitriol, or aromatic sulphuric acid, is nicer, and well adapted for private practice; but the common pure acid is quite good enough for most cases.

2. There are the alkalis and alkaline earths, as chalk, to which, we suppose, bismuth must be added. There is no doubt that these remedies have a certain force, though not much in severe cases. They deodorize, or neutralize, or alter the quality of the intestinal mucous membrane, and (if employed alone) are suitable for infants and persons with red tongues and irritable, possibly ulcerated, bowels. The dose of chalk or bismuth should be very much larger than is commonly given, say thirty grains every hour—quite enough to produce a decided chemical change in the contents of the alimentary canal, and to be detected in the fæces.

3. Antiseptics—*e. g.*, creosote, in doses of one drop in pills, is good in many an atonic diarrhœa. Its *modus operandi* seems clear.

4. Astringents. Under this head we have the vegetable astringents, as gallic acid, catechu, tormentil, etc., adapted for atonic diarrhœa with clean tongue. But it must be observed that these remedies are seldom given without opium, and that they do not appear superior to sulphuric acid—certainly not so good for popular use. Of mineral astringents, the acetate of lead, in two or three large doses, is most in vogue, especially with Indian practitioners.

5. Calomel is the English remedy *par excellence* for all cases attended with foul loaded tongue, yellow eye, thirst, headache, etc. We believe that it really has the power of checking pale serous stools, and of producing thick offensive ones, and in the right cases is without doubt the most powerful and certain remedy we have. In the opposite class it is equally mischievous.

6. Raw meat pounded into a pulp is a remedy which we first saw used by Professor Trousseau, at the Hopital des Enfants Malades, in Paris, nearly twenty years ago. It is especially adapted for young infants, who take it greedily; it appears to be digested without effort, and, by giving healthy material to the blood, cuts off those causes of diarrhœa which consist in an impoverished state of blood. Its specialty is as a remedy for infants and children with whom nothing else agrees or is digested. But it is also the food *par excellence* for any case whatever at any age in which food can be taken. Raw mutton is the thing—deprived of skin and fat, and pounded in a pestle and mortar till it is a mere paste. This may be given with or without a very little sugar to infants, in a dose of a teaspoonful at a time; adults may take a larger quantity diffused through cold beef-tea. We have established the fact to our own satisfaction that meat *raw* differs from meat cooked in being more

digestible, although meat cooked, if pounded to a powder and used to thicken broth, is a most useful food for adults, so soon as food is permissible.

7. *Opium.*—That this blessed and priceless antidote to human woe should be useful in diarrhœa, is no more than might be expected from its power of allaying irritation and pain and local afflux of blood. And the largest experience shows that with an ill-fed, ill-conditioned, below par population small doses of opium act like a charm in a large percentage of cases of atonic diarrhœa with a clean tongue. Its action and use in such cases are consistent with the whole science and practice of Medicine and Surgery. Let us suppose that the *bowels are loaded*, and that there are diarrhœa, pain and spasm. The bowels are clearly unequal to the task of efficiently and vigorously discharging their contents; and in giving opium, the practitioner does what the surgeon does when a patient with an irritated bladder cannot pass his urine, and what the accoucheur does when a woman is plagued with inefficient uterine action. Opium rests a weary colon, and allows it time to gather strength to discharge its duties with vigor. There are two classical works on surgery—Vincent's "Surgical Observations," and Hilton's "Lectures on the Principle of Rest;" both concur in advising the use of measures to allay fretfulness of the whole body and of parts, and to give time. Any one who denies the value of opium in atonic painful diarrhœa, must be put out of the category of arguable persons. Equally ought that man be sent to coventry who affirms that it is a universal remedy. Opium used indiscriminately in cases in which acids or calomel or purgatives ought to be used—that is, in cases where the tongue is coated and foul and there are evidences of loaded liver or *embarras gastrique*—may make the patient ill for weeks. We believe that we have seen fatal results follow the summary suppression, by opium, of a salutary diarrhœa, in over-fed, gormandizing, red-faced, tight-bellied personages, especially women.

8. *Purgatives.*—When diarrhœa occurs to persons who have previously suffered from constipation, in whom there are evidences of loaded bowels—fœtid, lumpy, quasi-dysenteric stools—the belly showing by palpitation and percussion signs of accumulation in the colon, and the mouth and tongue nauseous, then the practitioner need seldom refuse to venture on a dose of rhubarb and polychrest salt or castor oil, preceded or not by a dose of calomel. When the motions are inodorous, and the belly is empty, the use of purgatives is simply cruel.

9. Stimulants, such as ether, essence of camphor, the essen-

tial oils, as peppermint, cayenne pepper, and more especially the almost too familiar prescription of a hot and strong glass of brandy and water, are of well known efficacy in almost all cases of diarrhœa, except those attended with marked *embarras gastrique.*

If we may sum up our own impressions of *single* remedies, we give the first place to acids, as being more serviceable and less noxious than any other in the greatest number of cases; but for cases attended with well marked symptoms of pain, they are inferior to opium, in those with *embarras gastrique* to calomel, and in those of fæcal accumulation to calomel, or rhubarb with polychrest salt. Still they are the best single or universal remedy.

Whilst the science of therapeutics demands the employment of remedies singly, the necessities of practice compel combination, in order to secure different or even opposite effects, and so to hasten the patient's cure. The acids may be used as auxiliaries to any other remedy if the patient relish them. Opium may be combined with stimulants in atonic painful diarrhœa, and the popularity of the compound called chlorodyne shows it to be a useful model for imitation now, just as itself is an imitation of the ancient cordials and theriacas. Opium, in fact, which soothes pain, may be combined with eliminative remedies, so as to add the *tuto* and *jucunde* to the *cito.* Of such combinations the time-honored one of calomel two grains, opium half grain, is one which scarcely needs our praise. For a severe case it probably is the best thing that can be prescribed. It may also be combined with acids, or with alkalis, absorbents, astringents and stimulants, as in the well known compound chalk powder with opium.

The other day, happening to talk with a lady of rank on the cholera, we were asked, "Do you belong to the brandy faction, or the calomel faction?" We hope that our foregoing remarks have shown that there need be no factions at all, and that each remedy is good in its place, and that that place is pretty well known to practical men who are not committed to any faction. —*Lond. Med. Times and Gazette,* July 28, 1866.

Cholera.—The Edinburgh (Scotland) medical officer of health, Dr. Littlejohn, with a staff of ten assistants, lime-washers, etc., makes a house to house visitation in the more densely populated parts of the city, compelling the dwellers in unclean places to turn out and get renovated. The Doctor has no small job on hand in the purlieus of what was once the shade of aristocracy.

We extract from the *Lancet* the following summary of a paper by C. B. Fox, M. D., on the "Sympathy between the Auditory Canal and the Larynx:"

1. The sympathy between the ear and the larynx as well as the stomach, has been long known, although the majority of recent writers seem to have overlooked it.
2. This sympathy is not manifested in every individual, but in about 17 per cent., and seems to depend on a state of hyperæsthesia of the nerve which supplies the auditory canal.
3. The nerve of the ear concerned in the production of this phenomenon cannot be a branch of the vagus, as Romberg and Toynbee have affirmed, but is, in all probability, a branch of the fifth cranial nerve.
4. This sympathy is an example of a reflected or sympathetic sensation, in which the connexion between the nerves concerned takes place in the nervous centre.
5. Cases occasionally occur where a cough is solely dependent on the existence of some source of irritation in the auditory canal.
6. The explanation of the sympathy between the ear and the larynx enable us to understand the mode in which pain of the ear becomes occasionally a symptom of a thoracic aneurism.

One of my chief objects in bringing before the notice of my professional brethren this sympathetic connexion is to introduce to them what may be called an *ear-cough*, and to strongly advise them to examine the auditory canals in all cases of obstinate cough, where none of the more frequent causes of this symptom can be discovered.

The September number of the *Cincinnati Journal of Medicine* contains a paper by Dr. J. F. Hibberd, of Richmond, Ind., from which we reprint the following sentences:

Just now an active effort is being made to introduce into this city another nostrum called "Fluid Extract of Sarsaparilla with Iodide of Lime." This last article may be an excellent remedial agent, but it is presented surrounded by the declaration that large numbers of the most eminent physicians have testified to its worth; by the promise that it is admirably adapted to the use of children in chronic diseases, and by all those special pleadings that nostrum makers know so well how to apply to cajole the public into buying their wares.

This Iodide of Lime is one of the products of the laboratory of J. R. Nichols & Co., who have a very specioas and Oily

Gammon way of presenting their preparations to the profession. For some years this house has been making and vending an "Elixir of Bark and Iron," the great merit of which they claimed, was, that it contained the protoxide of iron, whereas it contains no such ingredient. Of this fact I have long been satisfied, but to fix the affair with chemical certainty, Dr. Weist, at my request, during the present week, examined a specimen that I presented him, and neither by the test paraded by the proprietors, nor by other tests, could any protoxide of iron be detected.*

Within the last forty-eight hours, while I was preparing this paper, the traveling agent of this same house laid upon my table a circular, one side of which is devoted to puffing the iodide of lime, and the other side is taken up with an essay on "Opium and its Alkaloids," leading to the announcement that the Tinctura Opii Deodorata of the Pharmacopœia is an excellent preparation, but that its title is a misnomer, and that they prepare the article in a superior manner, and *propose to vend it under the name of "Infusum Opii Deodorata."* Such brazen impudence is past being tolerable, and ought to rule the house of its perpetrators from the catalogue of reputable pharmaceutists,—and prevent any of their preparations from being found in any respectable drug store.

Contributions for the Medical Volume to be Published under the Direction of the Sanitary Commission.—Our readers are doubtless aware that a series of volumes is to be published under the direction of the Sanitary Commission; the different volumes to be devoted respectively to a History of the Commission, to Hospitals, to Military Hygeine, to Surgery, and to Medicine. We are requested by the editor of the volume on Medicine to invite any who served as surgeons or physicians during the war, either at the North or South, to contribute articles relating to camp diseases. All articles received will be carefully examined, and if incorporated in the work, due acknowledgment will be made to the authors. Articles relating to any of the diseases which prevailed in the armies of the United States or among the Confederate troops, will be gladly received. As the volume will be largely circulated, it will be a desirable medium for the diffusion of important facts and

* Dr. Hibberd has written a letter, received since his paper was presented, wherein he states that Dr. Weist has carefully examined a number of specimens of the preparation, and finds them to contain a proto-salt and a sesqui-salt of iron in varying quantities, the quantity of the one or the other salt probably depending upon the age and exposure of the particular specimen examined.

conclusions, based on the experience of those who held medical positions during the war. Articles should be sent, if possible, by the middle of September, or, at the furthest, by the first of October. They may be directed to the Medical Committee of the Sanitary Commission, No. 21 West 12th Street, New York City. Editors of Medical Journals are respectfully requested to insert this notice.—*N. Y. Med. Jour.*

Physiological Action of Narceine.—In the last number of the *Journal de Chimie Medicale* there is an abstract of M. Linne's researches on the above subject, from which we perceive that the following conclusions have been arrived at: (1) Narceine is unquestionably of all the alkaloids of opium that which has the greatest narcotic power. *In the majority of cases* morphia and codeia do not produce as sound or prolonged sleep as results from the use of narceine. (2) Narceine differs from the other alkaloids of opium in producing little perspiration, and in causing no loss of appetite or nausea. (3) So far from producing constipation of bowels, it causes relaxation, and, in large doses, actually gives rise to diarrhœa. (4) It not only produces sleep, but diminishes pain. (5) It has one peculiar action; it suppresses the flow of urine. For this reason M. Linne thinks it might be advantageously employed in cases of nocturnal incontinence of urine amongst children. But it seems to us that, until its action can be shown to be on the bladder rather than on the kidneys, its employment in such cases would be highly improper.—*Lancet.*

Armenian or Diamond Cement.—This article, so much esteemed for uniting pieces of broken glass, for repairing precious stones, and for cementing them to watch-cases and other ornaments, is made by soaking isinglass in water until it becomes quite soft, and then mixing it with spirit in which a little gum mastic and ammoniacum have been dissolved. The jewelers of Turkey, who are mostly Armenians, have a singular method of ornamenting watch-cases, etc., with diamonds and other precious stones, by simply glueing or cementing them on. The stone is set in silver or gold, and the lower part of the metal made flat, or to correspond with the part to which it is to be fixed; it is then warmed gently, and has the glue applied, which is so very strong that the parts so cemented never separate. This glue, which will strongly unite bits of glass, and even polished steel, and may be applied to a variety of useful purposes, is thus made in Turkey: Dissolve five or six bits of gum mastic, each the

size of a large pea, in as much spirits of wine as will suffice to render it liquid; and in another vessel dissolve as much isinglass, previously a little softened in water, (though none of the water must be used,) in French brandy or good rum, as will make a two ounce phial of very strong glue, adding two small bits of gum albanum, or ammoniacum, which must be rubbed or ground till they are dissolved. Then mix the whole with a sufficient heat. Keep the glue in a phial closely stopped, and when it is used, set the phial in boiling water. Some persons have sold a composition under the name of Armenian cement in England; but this composition is badly made; it is much too thin, and the quantity of mastic is much too small. The following are good proportions: Isinglass, soaked in water and dissolved in water, (thick;) dissolve in this ten grains of very pale gum ammoniac, (in tears,) by rubbing them together; then add six large tears of gum mastic, dissolved in the least possible quantity of rectified spirits. Isinglass, dissolved in proof spirit, as above, three ounces; bottoms of mastic varnish, (thick but clear,) one and a half ounces; mix well. When carefully made, this cement resists moisture and dries colorless. As usually met with, it is not only of a very bad quality, but sold at exorbitant prices.—*Tinman's Manual and Scientific American.*

Bromide of Potassium in Sleeplessness consequent upon Uterine Irritation.—It is better always to try this agent before resorting to narcotics in the wakefulness which is often associated with disease of the uterus or its appendages. Indeed, in some instances it will succeed in inducing rest where the others fail, and beside, the liability of these to disturb the digestive organs, is sometimes a serious objection to their administration. Without detailing cases, I would simply state that I have recently found remarkable benefit in the condition mentioned, from the bromide of potassium—the dose should hardly be less than ten grains, and may be twenty, or more.—*Cincinnati Journal of Medicine.*

Decision against River Pollution.—A case which has been twenty-five years in dependence, has recently been decided, after a trial of eleven days, in Edinburgh, Scotland. The paper makers beside the river North Esk have been polluting that stream with the refuse of their business until the landed gentry could no longer endure it, so they pushed the case to a decision and obtained a verdict prohibiting such use of the water course. Citizens of Chicago would be delighted to obtain such a verdict against those who have converted their would-be river into a cesspool. But large bodies move slowly.

PROCEEDINGS OF MEDICAL SOCIETIES.

CHICAGO MEDICAL SOCIETY.

SANITARY CONDITION OF THE CITY.

Prof. Davis read the sanitary report, of which he had given a verbal synopsis at a previous meeting. He stated farther, that, while during the month of June the mortality had been but 319, of which only 36 were from diseases of the bowels, during the month of July it had reached the large number of 706, of which 286 were from diseases of the bowels.

In the mortality returns at the health office, 68 deaths were reported as resulting from measles. Undoubtedly fully one-half of these were from affections of the bowels, thus making a total of 320 deaths from this class of diseases in the month of July. Dr. Davis stated, from observation in general practice during July, he could have foretold that the mortality would be very much larger during this month than it was in June. This increased mortality was undoubtedly dependent, in a great measure, upon the continued warm and sultry condition of the atmosphere.

The first cases presenting many of the symptoms of true cholera, without, however, excessive and rapid tendency to collapse, were observed on the 8th, 9th and 11th of July.

All the cases of cholera, almost without exception, had been either in portions of the city where the sanitary condition was bad, or in individuals evidently imprudent in the use of liquor, sleeping in sultry, ill-lighted and ill-ventilated apartments.

[It may be of interest to our readers to state, that during the month of August the mortality in Chicago reached the number of 940 against that of 319 for June, 706 for July, of this year, and 466 for August, 1865. Of this number, including 34 reported as deaths from teething, 516 were from diseases of the bowels; 578 were under the age of five years. There were 134 deaths from cholera and 15 from cholera morbus.—EDS.]

OPIUM IN CHOLERA INFANTUM.

Dr. Fitch had depended for several years upon minute doses of morphine, (gr. $\frac{1}{70}$—$\frac{1}{80}$) calomel (gr. $\frac{1}{4}$—$\frac{1}{2}$) and sugar in cholera

infantum with vomiting and emaciation. He had employed these remedies with most excellent results. The intervals between the doses were determined by the effects of the morphine.

Dr. Davis had found the following formula highly beneficial in many of these cases, especially in relieving vomiting:

℞ Aquæ distil. ℥ii., acet. morphiæ, gr. i., acet. plumbi, gr. xv., acid. acet. gtt. x. M. S. Dose, ten drops every three to four hours.

Dr. Paoli alluded to the very great danger of administering any preparation of opium to very young infants; he believed many children were destroyed by its injudicious use.

The remarks of these gentlemen induced a very interesting discussion upon the use of opium in young infants. It was the general opinion of the members that opium was perfectly safe for infants, however young, provided the necessary care was taken in reference to the quantity in the doses and the intervals between them. The doses should be very minute and repeated only as the symptoms indicated. In connection with opium, calomel and diuretics were considered important by some members.

Dr. Davis believed opium was exceedingly dangerous in diseases of the lungs in young children; with due caution, it was perfectly safe in almost all other diseases.

NEW ANÆSTHETIC.

Dr. B. F. Gilman, introduced as late Surgeon of the U. S. Army, presented several bottles of a new anæsthetic, with a circular describing its properties.

He claimed for it all the advantages of chloroform, ether or nitrous oxide, without danger of producing nausea, vomiting or headache. The agent was a compound of meconic acid, kinic acid, codeia and thein, dissolved in alcohol and formyl.

The remarks of Dr. Gilman and his circular gave rise to considerable discussion. Objection was expressed to the name of "Narcotina," which he applied to this new agent, as being a term already given to one of the active principles of opium. Objection was also made to the following phrases in the circular: Narcotina "is an almost instantaneous cure (?) for head-

ache and neuralgia." "*It is free from all danger, and may safely be used by children and adults.*" Doubt was felt how far the following was absolutely correct: "It has been thoroughly tested in hundreds of cases, and is used in the U. S. Army, in hospitals in New York, Philadelphia and Boston." The question was asked to what extent codeia, thein and such agents would be vaporized and enter the lungs, by inhaling their solutions, poured on linen or sponge.

On motion, the subject was referred to a committee, consisting of Drs. Bogue, Bevan, Lyman, of Cook County Hospital, and Holmes, with the request that the committee should make use of this anæsthetic in such patients as they might find convenient, and report at some future meeting regarding its efficacy.

ACUTE CONJUNCTIVITIS.

Dr. Holmes called the attention of the Society to the prevalence of acute conjunctivitis in the city during the past three weeks. He had been called upon to treat during this time a much larger number of cases than during the same period before in ten years. Several cases had been reported to him by medical friends. There seemed to be a popular opinion, in different sections of the city, that the disease was very prevalent.

The subject was of interest, since the testimony of our most experienced physicians would indicate that Chicago had not, for many years at least, suffered from an epidemic of conjunctivitis, as sometimes prevails in other parts of Illinois and the adjoining States. This disease prevails to such an extent in some country districts, that physicians in full general practice report, that occasionally more than a third of their patients are affected with inflammation of the conjunctiva. It would seem remarkable, in a city of 200,000 inhabitants, in a climate subject to such great and sudden changes as are experienced here, that acute conjunctivitis should be comparatively so rare.

Of the nineteen cases, observed during the past twenty days, eight were characterized by much swelling of the lids and ocular conjunctiva, and in three of these cases by considerable ecchymosis, as if small vessels had been ruptured. In five of these cases there was excessive mucopurulent discharge. In the re-

maining cases there was quite acute inflammation with much redness and more or less discharge, without, however, special symptoms. These cases were distributed nearly equally in the different divisions of the city, and could not be traced to special causes as regards location, habits of life, or health of the patients.

The local treatment in five of the milder cases was limited to a collyrium of alum, gr. x., and morph. sulph. gr. ii., to the ounce of rose water, instilled between the lids two or three times daily, with frequent application of tepid water to the lids.

The severe cases were all treated with solution of nitrate of silver, varying in strength from gr. x. to ℈ i. to the ounce of distilled water, applied once, and in the severest cases, twice, daily to the palpebral conjunctiva thoroughly exposed, the mucus and moisture being removed by a bit of linen. The application was made by means of a camel's hair-pencil, in such a way that the solution was not allowed to flow over the globe.

In three cases firm pressure with compresses, held in place upon the eyes by means of bands bound tightly around the head, was employed.

Special care was taken even in the mild cases that the patients should avoid all causes of irritation. Diuretics were administered, and when the condition of the patients admitted, free diaphoresis was induced by warm drinks, the patients being covered with thick blankets during the night. In two cases where there was considerable pain, nearly a grain of morphine was administered at night.

The results of this treatment were most satisfactory except in one case of muco-purulent, and two cases of mild catarrhal inflammation; in the former case an extensive slough of the upper portion of the cornea produced a large ulcer, which assumed the form of partial pannus; the lids became extensively "granulated." In the other two cases the inflammation, though slight, is still obstinate, and in spite of treatment, is becoming chronic, with hypertrophy of the conjunctiva.

PRESSURE IN CONJUNCTIVITIS.

In reply to a question asked by a member in reference to the acknowledged value of pressure in conjunctivitis, Dr. Holmes stated that the subject was scarcely mentioned by any of the standard authorities on diseases of the eye. In a work based upon the clinical lectures of Velpeau, published nearly thirty years ago, a simple allusion is made to the fact that pressure was habitually employed by the natives of the "East" in conjunctivitis. Velpeau himself and Piorry are said to have used it thirty years since. This mode of treatment, however, seems to have been almost wholly forgotten in Paris, and to have attracted little attention among the German and English ophthalmologists.

There is a short account of its use in Cooper's Surgical Dictionary, at the close of the article "Ophthalmy," in which it is stated that Dr. Sewell, of Washington, D. C., acquired considerable reputation thirty years ago by his success in the treatment of conjunctivitis by certain applications to the mucous membrane, followed by pressure on the lids.

Stellwag of Vienna, in his valuable work on diseases of the eye, published in 1861, devotes a page to this subject; he seems to confine its use principally to conjunctivitis in children.

Dr. Holmes stated that he had employed pressure in 1862, at the personal suggestion of Stellwag, but had not found sufficient benefit, in the three cases in which he applied it, to induce him to continue its use. In the case of slough of the cornea above mentioned, pressure was carefully applied.

Subsequently, however, he had employed it in quite a number of cases, and believed it would be found sometimes of considerable advantage, if applied in the very *earliest stages* of severe inflammation of the conjunctiva. He had been disappointed in its results in advanced stages. Desmarres and others seem to have placed confidence in it; while many others subsequently found reason to discard it.

In certain cases of acute conjunctivitis, it has been found utterly impossible to apply pressure, in consequence of the great tenderness and pain in and about the eye.

More recent observations in the journals of this country and Germany seem to show that little value can be attached to the method.

EDITORIAL.

BOOK NOTICES.

Medical Electricity: Embracing Electro-Physiology and Electricity as a Therapeutic, with Special Reference to Practical Medicine, showing the most approved Apparatus, Methods and Rules for the Medical Uses of Electricity in the Treatment of Nervous Diseases. By ALFRED C. GARRATT, M.D., Fellow of the Massachusetts Medical Society, Member of the American Medical Association. Third edition, revised and illustrated. Philadelphia: J. B. Lippincott & Co. 1866. Pp. 1103.

What shall we say of an author who almost at the outset of his work requires of his readers the comprehension of such terms as *anelectrotonus* and *katelectrotonus!* Perhaps Dr. Garratt chooses as a style appropriate to his matter one which involves the subject in all the clouds that can be summoned from the "vasty deep" of chaotic thought. At any rate he has presumed most unwarrantably upon the patience of his professional brethren in offering them a volume so ponderous as this third edition of his book. It is in itself a thunderstorm, a hurricane of words, furrowed with gleaming tracks of italic letters, which may be supposed to symbolize the lightning flashes upon the darkness of the tempest. And yet the volume is full of good stuff. It presents facts which the student can only with difficulty obtain from the original sources. It descends to all the minutiæ of description which are so important in text-books for the use of beginners. It is as complete a discussion of the subject of Medical Electricity as can be found in the English language. It acquaints us, in the person of the author, with a genial, agreeable, enthusiastic student of Nature.

It would be a great work and a treasury of learning such as could not be dispensed with, were it not for the flood of garrulity which pours through every paragraph to the extent of eleven

hundred solid pages. One might consent to overlook the minor errors due to the carelessness of the proof-reader, but not such as affect the substance and the order of the work itself. Had we time and space we could amuse our readers with a few illustrative passages by way of example of our author's quality, but that is out of the question. Whoever cares for such things must read for himself in the original volume.

We regret that we must speak thus of a work from which we had hoped for so much instruction. Of information there is certainly enough to satisfy any reasonable mortal, but it is not in a form to benefit the members of a busy profession. We need a monograph which in method and in point shall match the lectures of Radcliffe on Pain, Epilepsy and Paralysis. If some one will take Dr. Garratt his book, and will shake out the nonsense between its covers, perhaps the residuum may constitute the object of our desires.

A Treatise on the Origin, Nature, Prevention and Treatment of Asiatic Cholera. By JOHN C. PETERS, M.D. New York: D. Van Nostrand, 192 Broadway. 1866.

We have read this monograph with much pleasure. An agreeable style does wonders for a dull subject. For the first time we have been interested by the chapter which forms the dreary introduction to all other books on cholera—the chapter which is devoted to the history of the origin of the disease. Thanks to Dr. Peters, we have waded through the filth of Bigginuggar, Ramieseweram, of Jessore, Mysore, Congeiveram and the feast of Kurbar-Bariam without losing all stomach for the remainder of the book. This we consider a victory of no small importance to the author. The chapter on the course and distribution of cholera presents an array of facts and arguments in proof of the portability and communicability of the germs of cholera which may be considered as decisive. It will be difficult for any one hereafter to entertain the miasmatic or atmospheric-wave theory of the causation of the disease. It appears certain that the victim of cholera throws off, probably through the medium of the intestinal dejections, innumerable

germs which are transported in a manner analogous to the distribution of the seeds of plants. The causes which favor the germination and reproduction of the one class of germs, are strictly analogous to those favorable to the growth of the other. The experience of our own community during the present visitation of cholera, fully illustrates this proposition. Warmth, moisture, filth and physical predisposition afford the soil upon which cholera flourishes and spreads. When these elements are withdrawn, the prevalence of the disease is reduced to a minimum, and it becomes extinct, precisely as the seed of the sower springs not up when cast upon the dry and stony rock. The author states his belief concerning the propagation of cholera as follows:

The communicability of the disease does not correspond with the time when the dejections are voided; but is only developed a few days subsequently, and seems to be exhausted at the end of fifteen to twenty-one days. This peculiarity has been traced to the fact that the rice-water discharges only become poisonous after a while; for the first few days (hours?) they are inocuous; then, as decomposition proceeds, they become morbific, and capable of reproducing the peculiar disease of which they were the product. * * * After a few days more, when decomposition has reached a farther stage, the contagious property of the evacuations cease. These great facts account for the impunity with which careful and cleanly persons may wait upon those sick with cholera; for the mysterious and sudden outbreak of the disease, and for its equally sudden subsidence.

These points have been proved, in the following ingenious way: Pieces of filtering paper, soaked in the rice-water discharge have been given to mice, mixed with their food, and it was found that papers steeped in the very recent, and others dipped in the older discharges, proved alike harmless. But of the thirty-four mice that ate paper impregnated with excretæ of an intermediate date, thirty became sick, and twelve died; while the symptoms and appearances noticed after death, are declared to have been similar to those that are proper to cholera as it was seen in the human subject.

The section which is devoted to the theory of cholera reviews the various pin-hole theories of the disease which have been from time to time presented to the profession. We are puzzled to know why that one which the author seems inclined to adopt

for his own guidance, should be designated by the title of *Physiological Theory*. According to this notion the ten or twelve quarts of fluid which are daily exuded by the mucous surface of the stomach and intestines, are in cholera no longer reabsorbed, but are expelled from the body. There is certainly nothing worthy of the term *Physiological* in such a process. The "gland theory" which was advanced by Dr. Isaac Hayes, is now maintained by very few individuals. The "elimination theory" has already been fairly presented to the profession. The "paralysis theory" attributes the disease to a paralysis of the vessels and nerves of absorption, and requires the use of tonics and stimulants, such as strychnia, camphor, alcohol, quinine, etc. The "first spasm theory" supposes that the blood into which the cholera-poison has entered, is irritant in its nature, and that it excites spasmodic contraction of the muscular walls of the minute pulmonary arteries. From this proceed all the subsequent phenomena of the disease. Bell and Braithwaite have adopted a modification of this idea, which Dr. Peters calls the "second spasm theory," but that does not cover the whole ground. "It seems perfectly transparent that Johnson, Bell and Braithwaite have mistaken the secondary spasm of the vascular system in general, for a primary disorder." Dr. George Hamilton's theory that "profound passive congestion" is the root of evil, stands last on the list, and cannot be considered as anything but an unsubstantial shadow of a theory. The author himself advances nothing original as a substitute for the various theories which have been enumerated. Perhaps this should not be required in a work which is intended to represent other men's ideas rather than his own.

Under the head of prevention of cholera, prominence is given to quarantine, cleanliness and disinfection. It is sufficient to say that Dr. Peters believes in a long continued and rigid quarantine.

The section on treatment is little more than a catalogue of the various remedies which have been used by all classes of doctors—homœopathic included. Having enjoyed peculiar advantages for the observation of every variety of treatment, the author is enabled to speak with authority, and some of his reve-

lations are both curious and interesting. For example, we learn that "in 1832, the Edinburgh homœopathists used over five gallons of the tincture of camphor." Those gentlemen surely could not have belonged to the Hahnemaniac wing of the faction. We are, furthermore, informed that the tincture of camphor used by the homœopathists, is nearly five times as strong as the one in ordinary use. Kurtz and other homœopathists use teaspoonful doses of a solution of one grain of tartar emetic, in one or two ounces of water. Very good for the patient, but rather bad for homœopathy. In cases of collapse, "Fleischman and Tessier, who have had the largest homœopathic hospital experience, say that homœopathy is comparatively powerless." Tessier says, "it seems fair to treat the black and ataxic forms of cholera in the usual manner, inasmuch as homœopathy fails completely in both of these varieties." Among reputable practitioners, the treatment by sulphuric acid is said to be the fashionable mode at present. Dr. P., however, gives the preference to sulphate of iron or iron-alum. Stimulants and opiates should be used very sparingly and in small doses.

The book is beautifully printed on tinted paper, and forms a work which does credit to all who have been concerned in its production.

The Principles of Surgery. By JAMES SYME, F.R.S., Surgeon in Ordinary to the Queen in Scotland, Prof. of Surgery, etc. To which are appended his Treatises on the "Diseases of the Rectum," "Stricture of the Urethra and Fistula in Perineo," "The Excision of Diseased Joints," and numerous additional contributions to the Pathology and Practice of Surgery. Edited by his former pupil, DONALD MACLEAN, M. D., F. R. C. S. E., Prof. of the Institutes of Medicine and Lecturer on Clinical Surgery, Queen's University, Canada. Philadelphia: J. B. Lippincott & Co. 1866.

An edition of Syme's Surgery was issued in this country a few years since, by R. S. Newton, a Professor in the Eclectic School, "Cancer Doctor," etc., etc. This edition not being accepted by the members of the regular profession, of course added nothing to Prof. Syme's reputation in this country, and the profession is under obligations to Prof. Maclean for a cor-

rect edition of the work; while the distinguished Edinburgh Professor has reason to congratulate himself that one of his former pupils has redeemed it from the disgrace into which it had fallen at the hands of the "Eclectics."

The largest part of the work before us is devoted to the "Principles of Surgery;" a considerable portion, however, is given to special treatises upon important subjects, namely, "Diseases of the Rectum," "Stricture of the Urethra and Fistula in Perineo," "The Excision of Diseased Joints;" and over 150 pages are devoted to "Clinical Observations;" also, a report of three cases of excision of the scapula, and one case of excision of the tongue.

Every page of the work abounds in matter of interest, but it is these special treatises, etc., which render the work so particularly valuable; and for these alone, no student or practitioner of surgery, can regret the amount expended for the book. Its mechanical execution is satisfactory.

For sale by W. B. Keen & Co. Price $7.

On Spermatorrhœa: Its Causes, Symptomatology, Pathology, Prognosis, Diagnosis and Treatment. By ROBERTS BARTHOLOW A. M., M. D., etc., etc. New York: Wm. Wood & Co.

A very neat and sufficient monograph. The author thus states his reasons for writing upon this subject: "I think it is a reproach to our profession that this subject has been permitted, in a measure by our own indifference, to pass into the hands of the unscrupulous pretenders, whose suggestive publications are amongst the crying evils of our time. Because the subject is disagreeable, and to a certain degree disreputable, competent physicians are loth to be concerned with it. The same unnecessary fastidiousness causes the treatment of this malady to be avoided in private practice; and the unfortunate patients, thus precluded from obtaining intelligent advice, fall into the hands of advertising specialists, who excite their worst apprehensions for a mercenary purpose. For this reason, and to obviate the sad consequences which result from spermatorrhœa, it is our

duty to exert our best efforts in behalf of those afflicted with this malady. We should endeavor to attain to correct views of its pathology, and apply our knowledge to its cure—if for no other reason, for the good of our species."

For sale by W. B. Keen & Co.

A Manual of the Principles of Surgery, based on Pathology, for Students. By WM. CANNIFF, Licentiate of the Medical Board of Upper Canada, M. D. of the University of New York, M. R. C. S. England, etc., etc. Philadelphia: Lindsay & Blakiston. 1866.

Having carefully looked over this work, we feel prepared to say, that the author has accomplished all that he set out to do. The work will not only prove a useful "Manual for Students," but one of very considerable interest to the practitioner. There are many subjects fully treated of, and the various stages of the malady spoken of in detail, which are only cursorily dwelt upon by professors in the lecture-room, or by the standard authors on surgery. It is this fact more particularly than any other, perhaps, which should insure for the book a cordial welcome to the medical library.

The divisions of the work are as follows:

1st. Inflammation and Diseases arising out of Inflammation.

2d. The Healing Process and Diseases of the Healing Process.

3d. External Injuries—Contusions and Wounds.

4th. Diseases of certain Tissues, Bones, Joints, (including Fractures and Dislocations,) Arteries and Veins.

5th. Morbid Growths.

The articles on "External Injuries," under which division the author treats of "Lacerated, Contused, Punctured, Gunshot and Poisoned Wounds," are concise and to the point, plainly showing to the reader that the writer has very much of practical as well as theoretical schooling. We hope that the book may meet with the hearty welcome which its positive merits seem to warrant, and that shortly it will be followed by other efforts from our Canadian medical friends, since hereto-

fore there have been few books upon this and kindred subjects emanating from that quarter.

For sale by W. B. Keen & Co. Price $4.50.

The Medical Register of the City of New York, for 1866. By GUIDO FURMAN, M. D.

A valuable little hand-book, which contains full lists of all the societies, hospitals, charities and members of the medical public in New York.

PAMPHLETS RECEIVED.

On Excision of the Superior Maxilla: Report of a case by Wm. R. Whitehead, M. D., New York. 1866.

Asiatic Cholera.—Abstract of a report to the International Sanitary Conference at Constantinople. Reprinted from the *Boston Medical and Surgical Journal*, for Aug. 9, 1866.

Transactions of the Vermont Medical Society, for the year 1865.

L'Art Dentaire. A Monthly Review of the Science and Art of Dentistry. Chief Editor, A. Preterre, 29 Boulevard des Italiens, Paris. July, 1866.

It would be difficult for Ticknor & Fields to improve the *Atlantic Monthly*, but we notice that each issue of *Our Young Folks* is now adorned with a full page illustration, making it one of the most fascinating monthlies of the season. *Every Saturday* has also been enlarged, and improved by the introduction of a serial tale among its other well selected extracts from the most popular European periodicals.

CHICAGO HOSPITAL FOR WOMEN AND CHILDREN.

We have received the Annual Report of this most excellent charity.

The Hospital for Women and Children is an Institution founded and supported by benevolent individuals of Chicago and vicinity for the following objects:

1st, To afford a home for women and children among the respectable poor in need of medical and surgical treatment;

2d, To sustain a free dispensary for the benefit of the same class;

3d, As incidental to the above, to train competent nurses from this class of our population.

The Institution is under the direction of a Board of Trustees, composed of eleven gentlemen and fifteen ladies, all well known for their kind efforts to aid the needy and especially to relieve their sufferings.

The patients are under the immediate care of Miss M. H. Thompson, M. D., formerly assistant to the New York Infirmary for Women and Children, who is not only Resident Physician but also serves as Matron and Superintendent.

The following is the Board of Consulting Physicians and Surgeons:

Physicians.	*Surgeons.*	*Accoucheurs.*
W. G. Dyas, M.D.	A. Fisher, M.D.	Thos. Bevan, M.D.
C. G. Smith, M.D.	E. Powell, M.D.	E. Marguerat, M.D.
S. C. Blake, M.D.	T. D. Fitch, M.D.	H. W. Jones, M.D.

The Resident Physician has received the warmest approbation of the Trustees, and has the full confidence of the Board of Consulting Physicians.

During the past year 203 patients have been received into the Hospital, and 544 have been treated at the Dispensary. There were 36 obstetrical cases in the Hospital.

This Institution is similar in its objects and organization to the Infirmary for Indigent Women and Children in New York city. It is well known that this charity, under the immediate direction of Drs. Elizabeth and Emily Blackwell, is in a flourishing condition, having for its friends some of the most distinguished physicians of New York. In 1862, Drs. Valentine Mott, Willard Parker, G. A. Sabine, George Camman and John Watson were Consulting Physicians.

A limited number of students will be admitted to St. Luke's Hospital, once a week, for clinical instruction.

THE ORDER OF THE POLICE IN REFERENCE TO THE PRIVILEGES OF PHYSICIANS IN CROSSING CHICAGO BRIDGES.

We are certain the public as well as the medical practitioners of Chicago will be grateful to the Captain of our police force for his very humane and reasonable order by which physicians, to a certain extent, have precedence in crossing the bridges over Chicago river.

Those of our readers, who have visited Chicago, must have observed how often and how long carriages are obliged to wait at the dozen or more swing bridges for the numerous vessels which pass on our river.

It was no uncommon occurrence for physicians to find themselves detained for half an hour at the end of a line of carriages extending an eighth of a mile, thus being obliged to wait not only for the vessels to pass through, but for the vehicles of every description, before them to cross, however pressing their calls might be.

At present, a physician has the privilege of going immediately "to the front" and having precedence in crossing.

Physicians will thus be saved much anxiety and loss of time; the people generally, who have sick friends, will be spared many an hour of anxious waiting for their physicians, detained by the ever-swinging bridges.

We repeat, the order of the police is a humane one, of which the public as well as physicians will recognize the propriety.

CALIFORNIA WINES.

We notice that the California wines of Perkins, Stern & Co. are rapidly growing in favor. At the State Agricultural Fair held in this city last week, a silver medal was awarded to the firm, for the best specimens of California wine that were exhibited.

The committee of the Chicago Medical Society, consisting of Drs. Reid, Paoli, Marguerat, T. D. Fitch, W. E. Clarke, Hurlbut, and Blake, to whom the subject was referred, united in the following report:

WHEREAS, The profession have for a long time experienced the utmost difficulty, amounting almost to impossibility, in procuring for their patients, *pure wines*, as medicinal agents; any movement tending toward supplying this great want, deserves the encouragement of this society:

Your committee having examined the wines presented, and also the evidences of their purity and general excellence from many eminent members of the profession, submitted by the agent, unanimously report the following resolution:

"The California wines from Perkins, Stern & Co., of New York, presented before this Society, by their purity and general excellence are worthy of our confidence and patronage, and we hereby commend them to the medical profession."

DR. EDWIN POWELL has been appointed Adjunct Professor of Surgery in Rush Medical College.

Dr. Powell has long been connected with the Institution as Demonstrator of Anatomy. Last year he delivered an instructive course of lectures on Dislocations and Fractures. He brings to his new position a rich experience in civil as well as military surgery. His enthusiastic devotion to his profession, and other excellent qualities as a teacher, cannot fail to secure for his appointment the general approbation of the profession.

Students who desire private medical instruction will be received by Drs. Lackey and Lyman. For particulars, enquire at the office of the *Medical Journal*, 169 Dearborn street.

In our next issue we intend to give our readers a complete sketch of the course of cholera in Chicago during the present season. The number of cases has been comparatively small, and is rapidly approaching a minimum.

We would refer our readers to the advertisement of Mr. Dewar, the agent for Bass & Co.'s celebrated Ale. Those who wish to recommend ale to their patients, will do well to examine the quality of the article offered for sale by Mr. Dewar.

Prof. Brainard arrived in this city, on the 21st September, with health much improved by his recent tour in Europe.

Daniel Brainerd, M.D.

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ORIGINAL CONTRIBUTIONS.

Rush Medical College—Opening of the Twenty-Third Annual Session. Introductory Address, by J. W. FREER, M. D., Professor of Physiology and Surgical Pathology.

GENTLEMEN,—It becomes my pleasant duty, on behalf of my colleagues of the Faculty, to welcome you to these halls of learning.

We need not ask your errand here. You come from your distant homes, the hillsides and valleys of the great West, to reside for a season in the metropolis of the lakes, not for purposes of pleasure, but at a sacrifice of both comfort and means, that you may place yourself in relation with advantages incidental to large cities for the acquirement of medical knowledge.

We hope and believe you will not be disappointed in any of your expectations, for, as heretofore, it will be our constant endeavors to render every facility which ample means under our control, and long experience as teachers of medical science, may enable us to offer.

As an evidence of appreciation, we are pleased to observe so many present on this occasion who have heretofore honored us with their attention.

To those who are as yet strangers among us, we would beg leave to add, that we hope that our mutual labors during the

coming session may serve to familiarize us with one another, and that in future you also will give evidence of favor and appreciation by many returns to the institution of your adoption.

Permit me, then, in behalf of the Faculty, to extend to you the hand of fraternal regard, and welcome you to the rewards and labors of the session.

Doubtless you all expect to attain the honorable position of Doctors of Medicine, and to practice the science and art of healing as a calling in life. To secure that object you should become fully apprised of the attainments and qualifications necessary to a respectable position in the profession of your choice.

It has become a trite saying that a candidate for admission to a medical school should have gained what is termed a "good preliminary education." Now this phrase may signify more or less, according to its interpretation by different parties or nationalities.

In Europe, it implies a long and exhaustive university training, to the end that the mind may be stored with much that is useful, and stuffed with more that can be of no practical value —mere lumber and trash, never to be available in future life, or recalled, unless by way of regret that so much valuable time was consumed in the accumulation.

While, in this country, we have, perhaps, erred in the opposite extreme, in not demanding tests of any kind before admission to our medical colleges, the doors being open to all who may choose to enter, each being "a law unto himself," and the sole judge of his fitness for the race. If, perchance, there may have been an over-estimate of qualifications and ability for the contest, the mistake brings forth its legitimate fruits of chagrin and mortification on that final day so much dreaded by all candidates for medical honors.

The custom of throwing the responsibility on the candidate as to fitness to enter upon a course of medical studies may be in accordance with the spirit of our free institutions, in which every man claims the sovereign right to regulate his own conduct, with the privilege of selecting and entering upon any calling, at any time or place, prepared or unprepared. Yet, is

this condition of things conducive to the advancement and elevation of the medical profession? Who will not answer negatively? especially if men, as heretofore, are admitted to our ranks whose preparatory education does not embrace even the scanty round of studies taught in a country school-house.

Now, while it might be carrying matters too far to demand what is termed a classical or liberal education, still, would it not be better to require that students before being permitted to enter a medical school should present ample evidence of at least having attained a respectable knowledge of their native language, and whatever else of learning has been acquired, so much the better.

From the generally intelligent appearance of the young gentlemen present, I venture to predict that these modest requirements have been complied with, and more than this, you have doubtless received educations in which the functions of the body, the mind and the heart have been actively exercised and developed, in which the sinews of thought have been strengthened, and habits of attention and concentration acquired. Thus prepared, a student of medicine may enter upon his career with the legitimate hope that his labors in the various sciences will secure a full portion of all that may have been anticipated in moments of the most exalted ambition.

Gentlemen, you enter upon your career as students in stirring times. Progress is stamped upon all human undertakings, and on none more conspicuously than the science of medicine. We are no longer bound over hand and foot to venerable authority and exclusive systems of reasoning. Instead of these we find an independent thought and action prevailing among the great body of scientific workers, evinced by an earnestness of purpose in the evolvement of truth for its own sake and legitimate application, and not as the prop and support of preconceived theories and speculations.

This Faculty profess to be imbued with this spirit of advancement; therefore, your time will not be consumed in listening to cherished hobbies or theories—the deductions from unestablished facts. Your attention will be mainly directed to demonstrable truths—to facts either palpable to the senses, or established by

incontrovertible evidence, so that whatever you may hear, see, or observe, may be stored up in your memories as so much real scientific treasure—subject to no discount, and from which aid and comfort may be drawn throughout your professional lives.

The time allotted us is so limited, we can scarcely expect to go beyond the primary elements of the different sciences embraced in the curriculum. Yet these elements are to the abstruser parts what the fundamental rules in arithmetic are to the higher operations in mathematics. It is with these elements that the great problems in medical science are to be wrought. Separated from these, your lives as scientific men will be without foundation or aim.

Teachers of medical science sometimes not only magnify the calling but the importance of their particular branch. Yet all concede to anatomy the first place, without which there can be no scientific medicine or surgery. You will, therefore, cultivate it diligently. It is a subject that cannot be mastered by books and lectures alone, these means being mainly important in giving the language of the science. But, by practicing dissections, by handling, feeling, and seeing, we get a material and practical knowledge that will be retained by the memory long after the language is forgotten. Awful as it is to stand, day after day, in the presence of the dead, the value of dissection is such that it cannot be too strongly insisted upon. It is the very foundation of success, whether for the physician or the surgeon. All those who have risen to eminence, either as physicians or surgeons, have been thorough anatomists. The immortal Harvey revolutionized the entire practice of physic by his knowledge of anatomy. The incessant labors of Hunter in the dissecting room enabled him, aided by the light of genius, to confer such honor upon our profession, and so many benefits upon mankind.

Sir Astley Cooper boasted that he never passed a day, even in the zenith of his practice, without dissecting some part of the body. A physician or surgeon ignorant of anatomy, is like a man professing to mend watches without ever having opened one; or like a traveler wandering in a foreign land, ignorant of its geography, and without chart or compass; or a General

at the head of an army, marching and fighting in a country he has never seen—with slender knowledge acquired through danger, clouded by suspicion, and obscured by wilful falsehood.

But the physician can become acquainted with the body, which is the subject of his art, in all its varieties of health and disease, and may thus learn to direct his gaze through skin and fascia, muscle and nerve, down to the very organs of central life. And the surgeon, as he battles for the welfare of his patient in some hazardous operation, may enjoy, as a matter of course, the inestimable advantage of a battle-field which he has already studied expressly as the scene of such a conflict.

It is not for me to point out the details which must demand the attention of the student at different stages of his course. But, when I remind you of its threefold object—that you must dissect to learn the situation or landmarks of the vital organs most concerned in the practice of physic; to recognize the structures, around and within which surgery finds its occupation; and lastly, to gain the operative skill which is only thus to be acquired—you will understand why this practical and personal instruction in anatomy claims so much of your time, and why it comes foremost in the thoughts of a medical teacher, whatever his own special department of instruction. Without it you cannot even begin to acquire a knowledge of many other subjects indispensable to your success as medical scholars. It is the fulcrum of all your subsequent efforts.

You will listen with ever-increasing attention and interest to the lectures on chemistry, with their ample illustrations and beautiful experiments. And when you come to realize the unfolding of the exact laws of this science, with their numerous applications to the useful arts, to the detection of poisons, the nature of disease, and the products of its ravages; of substances for our sustenance, and to the expounding of those physical forces by which we are surrounded, you will feel like lingering on the very threshold of your profession for a more satisfactory survey of this vast storehouse of scientific wealth. At the very beginning of physiological science we are shown its dependence upon chemistry. Without its aid, what would we know of some of the most important functions of the body, of digestion, the

nature of secretions and excretions, of the bile, the urine and the gastric juice? We should have no knowledge deserving the name respecting the nature of the blood, the lymph and the textures of the body.

It is almost needless to call your attention to the importance of a knowledge of physiology. It should claim a large share of your attention during your pupilage, and throughout your professional lives. Without this accomplishment you can have no just conception of the laws by which we move and have our being, or of the relations which we sustain to the external world. Anatomy may have been acquired in its broadest sense — descriptive, special and general; chemistry may have yielded her choicest secrets; physics may be as "an oft told tale," and you may have added all other accomplishments of learning, yet, without a special knowledge of physiology, you will lack the very soul and essence of medical science. By it we are permitted to enter the very "Holy of Holies"—to see the workings of the myriad of agents revealed by anatomy, to realize more clearly the nature of that mysterious force about which mankind in every age have been exercised—Life! the motor power of all the living.

A thorough knowledge of its teachings imbues those who practice our calling with an unpretentious spirit—a spirit of modesty and caution while administering to those states termed diseased action, especially when reflecting that neither human skill nor invention has ever yet been able to reproduce the simplest form of life, nor the minutest organic particle in its own proper composition and function, and that all we are permitted to know are some of the conditions necessary to the manifestation of the phenomena of life. The physiological physician does not always see in the materia medica a ready means of regulating the system, of changing the secretions, correcting the liver, and of "putting things to rights" generally, but he often sees the absence of conditions that are necessary to the due performance of the living functions, and supplies them like a good and faithful follower of nature. You will, therefore, pursue with zeal this indispensable branch of medical science, and your reward shall be not only its every day appli-

cation to the amelioration of the condition of suffering humanity, but your minds will be expanded and ennobled thereby as with no other course of mental training, for you will have had a glimpse with the great poet, and will have seen that,

> "Far as creation's ample range extends,
> The scale of sensual, mental power ascends.
> Mark how it mounts, to man's imperial race,
> From the green myriads in the peopled grass;
> What modes of sight betwixt each wide extreme,
> The mole's dim curtain and the lynx's beam;
> Of smell, the headlong lioness between,
> And hound sagacious on the tinted green;
> Of hearing, from the life that fills the flood,
> To that which warbles through the vernal wood.
> The spider's touch, how exquisitely fine,
> Feels at each thread and lives along the line.
> In the nice bee, what senses so subtly true,
> From poisonous herb extracts the healing dew.
> How instinct varies in the groveling swine,
> Compared, half reasoning elephant, with thine.
> 'Twixt that and reason what a nice barrier;
> Forever separate, yet forever near!"

Pathological conditions are the result of irregular physiological action, and are therefore interpreted by the latter. We cannot enter this vast field of perverted life without this biological key. Without this exponent, diseases appear to the minds of men as involving forces and conditions totally distinct from those ordinarily present in the body—as entities—as demons, to be cast out or exorcised with substances of supposed marvelous potency, instead of being simple defects in the nutrition of parts, to be remedied by supplying the conditions of physiological order.

Perceiving, then, the inseparable relation existing between physiological and pathological states—how the former gradually merges into the latter, and so faint is the line of demarkation that it cannot always be distinguished, you will be convinced that without these twin accomplishments you can never interpret disease aright, and, moreover, that your professional lives must necessarily be those of empirics and pretenders, rendering you liable to be seduced into the various *pathies*, *isms* and exclusive systems of the day.

Thus triply armed with anatomical, physiological and pathological learning, you may enter upon the study of the practical

branches with profit and pleasure. The teachings of the theory and practice of medicine simply embrace the higher combinations and applications of your attainments in the fundamental sciences.

Disease, to be properly understood, must be read with a physiological eye, the departure from its standard measured by pathology, and the nature of its products be determined by chemistry and morbid anatomy.

The same rules apply to the science of surgery. The physician and surgeon occupy common ground up to the point of operative interference. Here the latter rests upon his anatomical knowledge for the security of his patient and his reputation as a man of skill.

There are those who make bloody and disgraceful records in the world, having no other claims to public confidence than temerity, some mechanical genius, and an indifferent knowledge of anatomy.

But here you will be taught that the greatest triumph in surgical science is that of determining the correct pathology, diagnosis and prognosis of disease, and of judging accurately of the propriety or impropriety of operative procedure.

No true surgeon lops a limb, cleaves a part, or mutilates an organ, without regret that the science has not as yet arrived at that state of perfection to enable him at all times to save rather than destroy.

Thus, every department in medical science is the fruit of a common stem, nourished and developed from a common source, and whatever of difference there may seem betwixt the various specialties in the healing art, to the enlightened mind all are seen to revert back to a common fountain for elucidation.

The science of medicine is said to be progressive; and has it not progressed since the days of Hippocrates, of Galen and of Celsus? Mark the accelerated advancement from the time when the brave and immortal Vesalius, who, contrary to the most violent prejudices of his time, introduced the practice of dissecting the human body. And again, what an impulse was given when the great genius of Harvey discovered the circulation of the blood—an impulse at first scarcely perceptible; but

when this great physiological truth had had time to penetrate the thick crust of hallowed errors pertaining to this subject, all the true followers of medical science were electrified with new hope and great prediction of a "good time coming" in the dim future, when medicine would, indeed, be purged of the opprobrium of being but a medley of contradictions, and proudly take her place by the side of the exact sciences. Although to the present time those hopes and predictions have been but partially realized, yet we have reason for increased assurance and encouragement, especially when we come to reflect that, comparatively within a recent period, so many things of vital importance to the advancement of medical science have been placed upon a solid and immutable basis.

With what patience and genius have the great workers in the world of nerve-matter pursued their devious way. They have questioned, racked and tortured the whole scale of animal life for facts and phenomena by which to generalize and develop the laws which govern the mental and physical man. These labors have been rewarded beyond precedent, in placing functions and actions incident to this wonderful system, with its indefinable and inscrutable influence over living tissues, on a basis scarcely less broad than that of the circulation of the life-giving fluids.

What an advancement over former times in the art of diagnosis! With the discoveries of Laennec of auscultation and percussion, a new era dawned upon the medical world. His great heart would have been gladdened could he have been assured that, in less than half a century, optical instruments would be in use capable of revealing in the living subject the deepest recesses of the eye, the intricacies of the larynx, the channel of the urethra, and the cavity of the bladder. Yet, by the genius of man, all these things have been accomplished within the past few years, and by the aid of the laryngoscope and urethroscope, light has been forced around angles and into recesses never before visited by its rays, bringing back the secrets of textural and pathological changes hitherto unrevealed in the living subject.

Doubtless the ancient fathers would have been amazed and

startled from their propriety could they have penetrated the future, to behold the surgeons of our time performing the most cruel and formidable operations, with the subjects of their skill unbound and untethered, no sturdy assistants repressing the physical manifestations of an agonizing spirit, but quietly resting in the arms of Lethe until awakened to gladness by the assurance that the terrible ordeal was past.

Did the wildest enthusiasts ever dream that the time would come when the original curse upon woman—"In sorrow shalt thou bring forth children"—should be shorn of its pangs, and the couch of travail be transformed into a downy bed of ease? All these things and more have been accomplished within the memory of the youngest of our number present.

In fact, the improvements, discoveries and amplifications in the different branches have been so extended within recent times that the student finds himself beset with tasks and difficulties of such greater magnitude than those encountered by his predecessors, even of a few years since, that he may well be excused if occasionally found indulging in the weakness of discouragement; and it is simple candor to acknowledge, that there are but few minds capacious enough to contain and make available all that has been attained in the science of medicine and surgery of to-day. Therefore, without by any means wishing to encourage neglect in the acquirement of a thorough knowledge of all the subjects embraced in a course of medical instruction, yet I believe it both proper and expedient to select some department that may be suited to our tastes, genius, or inclinations, on which, in future professional life, to concentrate all of our best energies and attainments. In this way, and in no other, can we become proficient in our calling.

Many now in the full practice of their profession, in looking back through years that have gone, passed in the practical study of disease, remember the feelings of awe with which they contemplated the numerous sciences they had to study, the lectures they were doomed to attend, and the apparent impossibilities which had to be overcome before they could throw aside the title of student and emerge as medical practitioners. For the encouragement of those about to tread the same path, let

us add that, by moderate industry and perseverance, all these difficulties will be vanquished. Students may be assured that, with average talent, assiduity and study, they may surmount all that now appears intricate and impracticable. There is no royal road to knowledge, the path is open to all, but it requires constant application to triumph over its obstacles. By working well, ample pleasures and recreations will be won.

In the delights of social intercourse, and in the broad fields of general literature, medical pupils will find inexhaustible sources of gratification. We would especially recommend them to cultivate a taste for reading. Knowledge is a tree whose trunk rises simple and massive, and then parts itself into branches. These branches are laden with fruit, which require but the labor of gathering, a labor which should prove one of love. Whoever has eaten of that fruit in the morning of life, will return to the tree with increased zest in the heat, the burden and the decline of day.

> "Comforts, yea, joys ineffable to find
> Who seek the prouder pleasures of the mind."

Literature and philosophy, sincerely cherished, are friends for life. They multiply and refine our pleasures, soothe our afflictions, soften the pangs of sickness, and embellish and irradiate the most toilsome career.

They must be pursued and cultivated, however, in a proper spirit, always remembering, as Lord Bacon said, the greatest error of all the rest, is the mistaking or misplacing of the last or farthest end of knowledge, for men have entered into a desire of learning and knowledge, sometimes upon a natural curiosity and inquisitive appetite, sometimes to entertain their minds with variety and delight, sometimes for ornament and reputation, and sometimes to enable them to victory of wit and contradiction, and most times for place and profession, and seldom sincerely to give a true account of their gift of reason to the benefit and use of men; as if these sought in knowledge a couch whereon to rest a searching and restless spirit, or a terrace for a wandering and variable mind to walk up and down with a fair prospect, or a tower of state for a proud mind to raise itself

upon, or a fort or commanding ground for strife and contention, or a shop for profit and sale, and not a rich storehouse for the glory of the Creator and the relief of man's estate.

A Case of Placenta Prævia. By JOHN REID, M. D., Chicago.

On the 2d of February last, I was called to see Mrs. P——, who was in the seventh month of her third pregnancy. She suffered from indigestion, constipation and general debility; but her principal complaint was of a steady, persistent pain in the right hypochondriac region which had troubled her for several months. There was no special tenderness of the part on pressure. The persistence of the pain, rather than its severity, occasioned her great anxiety; and she expressed her fears that there was something wrong in the position of the fœtus, or in the state of the womb, which would compromise her safety when she came to be delivered. I could not form a decided opinion as to its cause, but was inclined to think it might be dependent on the disordered state of her digestive organs. Under treatment directed to the improvement of that condition, she materially improved in health and spirits, but the pain continued.

I did not see her again until the morning of March 26th, when she sent for me in urgent haste. She had been seized a few hours before—while lying quietly in bed—with flooding to an alarming extent, which still continued, though in much less degree. Vague pains in the back and abdomen had preceded and accompanied it. She was just entering upon her ninth month. I at once administered half a drachm of fluid extract of ergot, and prescribed smaller doses every hour during the continuance of the flooding. I remained about two hours, when the hemorrhage had almost ceased. The discharge ceased altogether soon after I left in the morning, and her pains also subsided. No pains appeared to have been induced by the ergot.

27th.—Patient passed a restless night. Complained of acute headache, ringing sound in her ears, strong pulsation in her temples, and an uncontrollable state of alarm. Her counte-

nance was flushed, pulse full and bounding, but soft and compressible. No return of hemorrhage. Prescribed cold applications to head, and an ounce of castor oil, as her bowels had not been moved for several days. In the evening she was more comfortable; bowels had freely moved. She had not slept and was dreading another wakeful night. Prescribed a third of a grain of sulphate of morphia.

28th.—Passed a comfortable night, and feels better in all respects. Enjoined rest in bed and careful avoidance of excitement.

A few days afterwards, I called, as I had not heard from her, and found her up and feeling comparatively comfortable, but very weak. I insisted on her going to bed and remaining there, which she did, and I heard no more of her until the morning of the 7th of April, when I was again summoned to her assistance. A profuse gush of blood had taken place about 8 o'clock A. M., while lying in bed.

The discharge had, as in the former instance, been preceded and accompanied by slight pains. By the time I arrived, which was 7.30 A. M., the flooding had greatly abated. She had commenced the use of the ergot mixture (℞ Vin. ergotæ, ℥iiss., fl. ext. ergot. ℥ss., M., dose ℥j.) on the first occurrence of flooding, and kept it up every hour as directed. I remained an hour—continued the use of the ergot, and had the satisfaction of finding the hemorrhage rapidly abating. In the course of the day it ceased entirely, and the pains which had been quite irregular paased off. For the first time, I made an examination in hope of finding an explanation of the hemorrhages. The os was closed, the cervix very short, but not quite obliterated. On pressure with the finger the walls of the uterus seemed soft and cushion-like. The sensation conveyed by the touch confirmed the conclusion I had previously reached, that the case was one of placenta prævia.

During the interval of these attacks my patient had rallied well from the effects of the first. Rest in bed, with judicious diet and nursing, had done much to restore the loss, so that, although she was much prostrated by it, she bore the second attack better than I could have expected.

8th.—Under the influence of opium she had passed a quiet night and continued comfortable through the day. She partook freely of beef-tea and milk, which agreed well with her.

17th.—Called in haste at 9 A. M., in consequence of another attack of hemorrhage. She had experienced slight pains during the preceding day and evening, which increased during the night, recurring at regular intervals. A slight flow had taken place in the night, but not sufficient to excite much alarm until about 6.30 A.M., when it became profuse. When I arrived my patient's blanched appearance and feeble pulse indicated the necessity for prompt interference to arrest the hemorrhage. She had now arrived at her full term, and the regular recurrence of pains showed unmistakably that labor had commenced.

The time for decisive action had arrived. What that action should be could only be determined by the condition of the os uteri. Providing myself with a knitting needle, in case I should conclude to puncture the membranes, I made an examination, and found the os closed and apparently rigid. On attempting to introduce the finger, I found the posterior lip yielded, so that I passed my finger and felt the placenta implanted over the os. It was firmly attached over the anterior lip, but posteriorily it was partially separated, and I could introduce my finger for a short distance in that direction. Introducing my whole hand into the vagina, as the os uteri was high in the pelvis, I pushed my finger onwards, separating the placenta in search of its edge, beyond which I intended to tap the bag of waters. I could not reach it,—the presentation of the placenta being at least nearly central.

The contracted state of the os interposed an insuperable obstacle to the introduction of the hand for the purpose of effecting delivery, and equally opposed the accomplishment of Dr. Simpson's plan of removal of the placenta. Had Dr. Barnes' dilator been accessible to me, I should have used it. As it was, three practicable methods, or a combination of them, remained to me: 1st, Rupture of the membranes through the substance of the placenta; 2d, Dr. Barnes' method of partial separation of the placenta; 3d, The tampon. The first I decided against on account of the risk to the child.

I determined on the second, and then if flooding should continue, to use the tampon. Accordingly, I separated the placenta as far as my finger could reach over the posterior lip, but on attempting to sweep it around over the anterior, I found it impossible to do so, owing to the firmness of its attachment. I then removed my hand, and found to my surprise that the hemorrhage had ceased. I say to my surprise, for I supposed my failure to separate the placenta from the entire lower zone of the uterus would necessarily entail the penalty of continued and increasing flow.

It was now 8.30 A. M., and during all the time which had elapsed since the commencement of discharge in the night, my patient had been taking the ergot mixture every hour as prescribed, and in addition, I had administered a drachm of the fluid extract immediately on my arrival. On the cessation of the hemorrhage, the ergot was discontinued. The pains continued regular but feeble, and notwithstanding the quantity she had taken, had nothing of the ergotic character. On the contrary, as the day advanced they gradually declined, so that from 10 A. M. until about 4 P. M. hardly any were felt. I remained with her, except at brief intervals, throughout the day. Towards evening the pains returned with more frequency, and with them a renewal of the discharge. An examination at this time showed but little change in the condition of the os. The anterior lip remained rigid as before, while the posterior was more dilatable. I recommenced the use of the ergot mixture, and by 7 P. M., persistent pains, with little intermission, showed the decided action of the drug; a slight discharge occurring at intervals. I now discontinued the ergot and sat down to wait results. By 8 o'clock the pains had died away,—the os was more dilatable, but not dilated, and scarcely a sign of discharge.

8.30 P. M.—Slight increase of discharge, but no pains. Called Dr. Paoli in consultation. On ascertaining the condition of the os, he urged the use of gallic acid, 15 grs., and tartar emetic, ½ gr., every half hour, four doses of which were given.

11 P. M.—Still no pains; os unchanged; slight continuous discharge. Patient by this time was fast losing strength and courage, and it was evident she must succumb unless delivery

could be speedily effected. No warrantable degree of force would penetrate that rigid os uteri. What, then, was to be done? I was opposed to the use of the tampon, both on account of the passive state of the womb and the extensive separation of the placenta, which would permit the efflux of blood between the membranes and uterine walls. There seemed to be no resource but to administer stimulants and wait for such a degree of dilatation as was necessary to effect delivery.

12.30 A. M.—Os uteri much more relaxed and dilatable, (but only in its posterior lip;) discharge increasing. At my request, Dr. Paoli now proceeded to make an attempt to deliver through an opening made in the placenta.

After a tedious effort, he succeeded in making an opening large enough to introduce the hand, and then requested me to relieve him, as he was too much fatigued to proceed. Before his hand was withdrawn I administered a drachm of fluid extract of ergot, and immediately as he withdrew his hand introduced my own, and pushing it on quickly through the placenta, found the head presenting, occiput backwards. Pushing onwards I found a knee, behind which I hooked my finger, and turned without much difficulty. It required considerable time and force, however, to bring the child, which was large, through the comparatively unyielding os; but we concluded that prompt delivery was necessary to the safety of the mother, while it afforded us the only hope of saving the infant. As it was, the delay in the passage of the head was unavoidably so great that I had given up all hope of the child, when I felt it make a convulsive movement. Stimulated by this sign of life, I renewed my efforts, and soon succeeded in effecting its delivery. To all appearance it was dead. With Dr. Paoli's assistance, a combination of Sylvester's and Marshall Hall's ready method was diligently practiced, with alternate dippings in hot and cold water. After, perhaps, five minutes, a feeble gasp encouraged us to proceed. By and by came another and another at considerable intervals, until at length, after fully half an hour from the time of delivery, a feeble wail and the occurrence of regular respiration rewarded our efforts.

In the meantime, having satisfied ourselves that on the part

of the mother the flooding had ceased, and the womb had well contracted, she was entrusted to the care of a nurse, who was instructed to grasp the uterus through the parietes and exert steady pressure thereon.

The safety of the infant being now insured, I requested Dr. Paoli to see to the mother. The placenta had not come away, and on introducing his hand to remove it, found it was impossible entirely to detach it, owing to its close adhesion over the anterior aspect of the womb. Though fearfully exhausted, the condition of the patient was promising. A full dose of opium served to tranquilize her nerves and steady her pulse. I remained until daybreak, when I left with good hopes of both mother and child. The child lived and performed all its functions well for a week, when it was seized with symptoms of intussusception and died.

The mother remained under treatment for some time, but progressed favorably from day to day. The small retained portion of placenta came away a few days after delivery.

Owing, I suppose, to the great loss of blood, no lacteal secretion was formed. To-day, five months from her delivery, she is in good health, although she has not regained her former vigor.

Clinical Lectures on Diseases of the Eye. By E. L. HOLMES, M. D., Lecturer on Diseases of the Eye and Ear in Rush Medical College.

STRABISMUS.

GENTLEMEN,—I scarcely need dwell upon the description of the operation for strabismus which you have just seen performed. The different steps in the operation have been several times explained during the course; and yet, as this is probably the last opportunity we shall have of alluding to the subject this winter, I desire to call your attention to several important points. Although there are various modifications in the operation, which you can find described in different works on ophthalmology, I advise you to confine yourselves to the ordinary method, till you have acquired actual experience in operating.

First, therefore, after separating the lids by the aid of the

spring speculum or levateurs, and, when necessary, rotating the eye to a convenient position by means of a delicate hook, you seize a horizontal fold of the conjunctiva, snip it with the scissors in such a way that there will be a vertical incision about a third of an inch in length through the mucous membrane, and two or three lines from the cornea; second, after dissecting carefully the cellular tissue to the sclerotic, you pass the blunt hook under the tendon of the muscle and divide it close to the sclerotic. Instead of the blunt hook, passed under the muscle, there is good authority for using a small pair of toothed forceps to seize and slightly elevate the tendon previous to severing it. In this way, there is less pain and less extensive separation of the conjunctiva from the sclerotic than when the blunt hook is used. The dressing necessary after this operation, is simply wet compresses laid over the lids for a few hours. It is well to exclude the patient from exposure to changes of temperature and from use of the eyes for some days. The extravasation of blood into the cellular tissue of the conjunctiva often occurs, but need cause no apprehension. Occasionally, cicatrization takes place slowly, in consequence of the formation of a button of granulations in the wound. This can be snipped off with a pair of scissors.

As regards the steps of the operation, there are perhaps but two points to which there is particular necessity of caution.

The first is, you should not attempt to introduce the blunt hook till the mucous membrane has been fully divided down to the sclerotic. The second is, in dividing the tendon of the muscle, that you should avoid injuring the sclerotic by the imprudent use of too sharp-pointed scissors.

Although the operation is comparatively simple, it is important that great delicacy in the use of instruments should always be employed. Care should be taken that no instrument, however blunt, should come in contact with the cornea.

To acquire skill, you should dissect the muscles of the eye, in reference to this operation, as much as possible, and practice the fingers frequently in the use of the necessary instruments.

Before proceeding to an operation in any case, it is necessary that the diagnosis should be well established. The only affec-

tion you would often be liable to confound with ordinary strabismus is paralysis of the internal or external rectus, by which, of course, the cornea is permanently turned in the direction of the unaffected muscle by the tonic contraction of the latter. To the careless observer, paralysis of the external rectus might be mistaken for internal strabismus, since the eye (cornea) would, in such case, be turned towards the inner angle. *Vice versa* might (paralysis of the internal rectus) be confounded with external strabismus, since the cornea, in both cases, would be turned toward the external angle.

Spasmodic contraction of the internal or external rectus, which would, to a certain extent, simulate internal or external strabismus respectively, are very rare affections.

In reference to diagnosis, you should impress upon your minds the fact, that uncomplicated strabismus is a deviation of the visual axis (cornea) in a particular direction, to a degree, in each individual case, almost constant, with, however, almost perfect freedom of movement of the globe in all directions.

In the vast majority of cases, strabismus is an affection principally of the internal and external recti. You will rarely meet with superior and inferior strabismus.

In rotating the eyes from left to right, in uncomplicated strabismus, the corneæ both move to an equal extent, as you can observe by watching the distance over which the centre of the cornea, or a spot on the iris, moves from right to left along the edge of the lids.

The strabismus is sometimes alternately first in one eye then in the other. In either single or alternate strabismus, if one eye be fixed upon an object directly in front of the patient, the other eye will be "crossed;" if now the "straight" eye be covered with the hand, the "crossed" eye can be fixed upon the object. On inspecting the eye behind the hand, it will be found that this is now "crossed."

This form of strabismus has been termed of late years, "concomitant" strabismus, to designate it from fixed strabismus, (lucitas.)

When there is free movement of the eye, or when, on covering an eye already fixed upon an object, the "crossed" eye

becomes straight, and the covered eye becomes crossed, there is almost always a favorable prognosis in regard to the result of the operation.

You should, however, bear in mind what many seem to forget, that, when the strabismus is very extensive, an operation often but partially restores the eye straight; or, if the eye becomes straight, that the other eye becomes turned. In such cases, it generally becomes necessary to operate at once on the other eye.

Although this operation is usually most satisfactory in respect to the restoration of the parallelism of the visual axes, and often improves vision, you must not expect that sight will always be regained in the affected eye—nor even that, without exception, the visual axis will be absolutely restored to its exact normal position.

The operation is, perhaps, attended with most favorable results, when the patient is between 5 and 15 years of age. I would advise you usually to perform the operation with the patient under the influence of an anæsthetic. You have seen, in two instances, how little dependance could be placed in the courage of patients, since, in these cases, the operation was interrupted by fainting.

The nature and causes of strabismus are still, in many respects, not well understood. Although long monographs have been written on the subject, the precise relation of cause and effect requires much more study. Donders, of Utrecht, after careful examination of many cases of convergent strabismus, has shown that, in a very large portion of instances, it is produced by hypermetropia, or that condition, as we have seen, in which the rays of light from very distant objects (parallel rays) are brought to a focus behind the retina, unless a certain portion of the power of accommodation is called into action.

You remember that the normal eye receives perfect images on the retina from very distant objects, when the accommodative apparatus is in perfect relaxation. Distinct vision of near objects with both eyes takes place, not only by calling in action the power of accommodation, but also by a contraction of the internal recti. There is a relation within certain limits between

the amount of the accommodative power necessary in vision and the degree of convergence in the visual axes, produced by the contraction of the internal recti.

In the normal eye, on looking at very distant objects, the internal recti and the apparatus of accommodation are in perfect relaxation. As the eyes are directed to nearer objects, the divergency of the optic axes, as also the amount of contraction of the adjusting (ciliary) muscle, both increase in their relative proportion. The greater the demand upon the power of accommodation, (as in looking at nearer and nearer objects,) the greater is the tendency to converge the visual axes. Now in hypermetropic individuals, while looking at distant objects, the eyes (visual axes) remain parallel, while the power of accommodation is called into action. A portion of the accommodative power has thus been already necessarily expended before there is a demand upon the internal recti to produce convergency of the visual axes; it follows then, that, in looking at near objects, almost the whole power of accommodation is expended; and on looking at objects somewhat nearer, there is a necessity of the greatest possible effort on the part of the adjusting muscle. This great effort in the normal eye should be accompanied by a corresponding convergency of the visual axis.

But while the power of accommodation thus called into action in the hypermetropic eye would adapt the normal eye to a very near object, the required convergency is such as would be necessary in simply looking at quite distant objects. Such eyes are unable to endure this abnormal antagonism between the apparatus of accommodation and the recti muscles. Hence, while one eye is directed to the object, the undue tendency to contract in the other internal rectus, turns the eye (cornea) inward.

You will thus bear in mind that, in a very large proportion of cases of converging strabismus, the presence of hypermetropia is the predisposing cause.

On the other hand, myopia is the predisposing cause of diverging strabismus.

In the myopic eye, the antero-posterior diameter is so long, that the rays of light from distant objects, (the accommodating apparatus being totally relaxed,) unite at a point in front of the

retina. The objects must be brought near the eye to form distinct images *on* the retina. Hence, as the object is near, although the apparatus of accommodation is in a state of relaxation, in which the visual axes should be parallel, there must be a convergency of these axes.

Now, as the eyes become fixed upon still nearer objects, there is a greater demand upon the internal recti for convergency, than is actually called for by the effort on the part of the accommodative apparatus. The force of the internal recti is thus partially expended before it is normally called for; it is all expended before the whole power of accommodation is called into action. As, with the increase in the effort of accommodation, more is demanded of the internal recti than they can perform, they become weary; the weaker muscle yields to its antagonist, the external rectus, and divergency is the result.

In addition to this cause, is one, perhaps, of more importance; the fact that the globe is elongated in myopia, increases the resistance to the action of the internal recti, and, consequently, the weaker muscle is sooner wearied, which tends to give a relatively greater power to one of the external recti.

I am well aware how imperfect these few remarks upon strabismus are. Our limited time has prevented a further discussion of the subject. I must, however, refer you to a few interesting and important points for your future study.

1st. The necessity of suitable convex lenses after operation for strabismus, where hypermetropia is present, not only to aid the vision of the patient but to prevent return of the strabismus.

2d. The fact that the line drawn from the centre of the cornea through the centre of the globe—or centre of motion, which is somewhat behind the mathematical centre, does not coincide with the line drawn from an image of an object on the macula lutea to the object, but forms an angle varying from about 5° to 9° and even 11°.

3d. Why all patients who are hypermetropic, are not affected with strabismus.

4th. What other conditions are favorable to the production of strabismus.

5th. The reason why, while paralysis of a muscle produces

double vision, this is seldom present in uncomplicated strabismus; and why, sometimes after operating for strabismus, double vision appears.

6th. The indications for the operation of dividing the tendon of one of the recti, and bringing the end of the muscle forward, to be attached to the sclerotic nearer the cornea.

7th. The use of prismatic glasses.

Although much has been written on these subjects by different authors, I must refer you particularly to the works of Donders and Græfe.

Local Anæsthesia. By HENRY T. GODFREY, M. D., Benton, Wisconsin.

My apology for presenting the following cases to your notice is, not that they contain anything of novelty, but because they go to show the utility of Dr. Richardson's method of producing local anæsthesia to the country surgeon, who often finds it difficult or impossible to obtain the assistance necessary for the safe administration of chloroform. Sulphuric ether was used in the following cases:

1. Alice R——, æt. 16. Application of spray thirty seconds. Extraction of molar tooth, without pain. No ill effects.

2. Henry B——, æt. 12. Deep incised wound in back, caused by point of a plough. Application of spray forty seconds. Introduced three sutures, without pain. Wound healed well.

3. Same patient. Incised scalp wound. Application of spray thirty seconds. Introduced two fine sutures. Slight pain.

4. John S——, æt. [redacted]. Onychia of three months' standing, which is so irritable that the slightest touch gives pain. Application of spray sixty seconds. Excision of one-fourth of nail, without pain.

5. Lawrence D——, æt. 60. Application of vapor thirty seconds. Extraction of molar tooth, without pain. This patient was under treatment for pneumonia, of which he died on the fourth day following.

6. Mrs. R——, æt. 30. Potts' fracture, followed by abscess of ankle-joint. This patient was so intractable during the

early part of her illness, that she could not be induced to lie still, or permit any appliance to maintain the foot in proper position. Application of spray sixty seconds. Enlarged the wound. Extracted a piece of carious bone, without pain.

On the day following, opening of abscess, also, without pain, or other ill effect.

7. Mary Ann S——, æt. 17. Encysted tumor, size of a walnut, in the left superciliary region. Application of spray seventy seconds. Excision of tumor, without pain or ill effect.

HOSPITAL REPORTS.

COUNTY HOSPITAL SURGICAL CLINIC.

Strictures of the Urethra—Perineal Section. By GEO. K. AMERMAN, M. D., Attending Surgeon.

GENTLEMEN,—To-day, we shall occupy the greater portion of the hour in studying the causes, symptoms and treatment of strictures of the urethra. This affection, though not of very frequent occurrence, is still sufficiently so to demand your careful consideration; and if you would make yourselves competent to manage a bad case, you must first thoroughly understand the subject, and possess, in addition, patience, perseverance and skill.

In the study of this subject, and to make it as simple as possible, let me direct your attention to the patient now before you. He is 53 years old, of moderate [illegible] temperate habits, and has always enjoyed good health until about three years ago. At that time, he began to experience difficulty in passing water. It would often come in a small stream, followed by a sense of scalding, with an uneasiness about the loins and perineum. After exposure or much exercise, these symptoms were greatly aggravated, so that he was very soon induced to consult a surgeon, whose treatment afforded so much relief, that he supposed he was entirely cured. Last September, about eight months ago, he had an attack of intermittent fever, and was obliged to undergo severe hardship and exposure, which brought

on a relapse of the old difficulty with more severity than ever, and after exhausting all his means to obtain relief, he was finally obliged to ask admission into the Hospital.

He is now unable to pass his water, and has very little control of the urinary organs. The urine is constantly dribbling away from him, (incontinence,) and he suffers great pain in the loins, penis and perineum.

These symptoms are sufficiently characteristic to enable us to form a correct diagnosis, nevertheless, they cannot be regarded as unequivocal, and that we may be absolutely certain, we will endeavor to introduce this sound through the urethra into the bladder. This little operation, if carefully conducted, is generally painless. The sound enters, as you see, easily enough, until it reaches the membranous portion of the urethra, and here its course is suddenly arrested. No reasonable force will carry it any farther. Here it meets some obstruction, which feels hard and unyielding, and is sufficient to account for all the trouble this man suffers.

Here, then, we have a case of organic stricture of the urethra, of three years standing, in a patient 53 years old, and otherwise healthy. Now this condition of things has not come on suddenly. This patient has had this trouble for three years, gradually increasing, until finally, the urine escapes only in driblets. Three years ago, from some cause or other, this man suffered an inflammation of the urethra. This inflammation resulted in the effusion of coagulable lymph beneath the mucous lining of the canal, and this lymph, becoming organized, encroaches upon and nearly closes it. This form of the disease is termed organic, and is always the result of inflammation of some portion of the mucous lining of the urethra. Generally, indeed almost always, this inflammation is neither more nor less than an imperfectly cured gonorrhœa. Strictures assume different forms according to their seat, number and consistence. "In 270 specimens examined by Mr. Henry Thompson, there were 320 distinct strictures. Of these, 215, or 67 per cent. of the entire number, were situated at the junction of the membranous and spongy portions of the urethra; 51, or 16 per cent., in the centre of the spongy portion, and 54, or 17 per

cent., at the external orifice and within two inches and a half behind this point."

Strictures also vary in their density, some being soft and elastic, others hard, dense and unyielding. Some encroach only moderately upon the canal, and produce very little trouble, others are so close as to be impermeable.

In the treatment of strictures we must be governed, for the most part, by the nature and character of the particular case with which we have to do. No one plan is applicable in every case. In some, gradual dilatation is preferable; in others, forcible rupture, incision, external division, or cauterization, may afford the best chances of a permanent cure.

In this patient, and indeed I think in a very large majority of the cases of permeable strictures, the treatment by gradual dilatation is altogether preferable. For this purpose, provide yourselves with a good set of steel sounds, numbering from 1 to 14, and beginning with the largest size that you can introduce without using force or causing much pain, continue their use, about every second day, until you have succeeded in dilating the canal so as to admit, readily, a No. 12 or 14 sound. This will require time, generally from three to six months, but when you once succeed in this manner, the result will be much more satisfactory both to you and to your patient. But even under these circumstances,—after you are able to introduce a No. 14 sound without any difficulty, and have succeeded in relieving every symptom of the disease—it will not be safe to entirely dismiss your patient. There is some remaining, in a fully dilated stricture, that will, in a certain proportion of cases, contract and eventually close the canal, even after a long time, unless the occasional use of the instrument is continued; and if you desire to secure a permanent result, let your patient provide himself with a large sized sound, and after you have taught him how to use it, instruct him to continue its use once or twice a month for at least a year. By doing this, you will, in nearly every case, effect a permanent cure.

We shall treat this patient by gradual dilatation, and you will have an opportunity of seeing the result.

CASE II. This, Gentlemen, is another case of inability to urinate, but of an entirely different character from the one we have just examined, and, as you will perceive, requiring entirely different treatment. This patient was admitted into the Hospital only a few days ago, and gives the following account of himself:

Aged 25, unmarried, general health good, with no predisposition to disease, either hereditary or acquired. Three weeks ago, whilst engaged in the pineries of Michigan, he was struck by a heavy log, which crushed him, until released by his fellow workmen. He was immediately carried to his boarding house, and a surgeon was summoned, who arrived thirty-six hours after the accident. During this time, he was unable to urinate; he only succeeded in passing a few drops of blood and, perhaps, a little urine. The surgeon, on arriving, at once introduced a catheter, affording complete relief.

His injuries seemed to be confined to the lower part of the back and to the perineum, and, excepting the difficulty of urinating, were not of a serious character. The doctor ordered an anodyne, and returned home. From that time to the present, he has not passed a single drop of healthy urine through his urethra. For a day or two after, a few drops of a sanguineous fluid, mixed with pus, would occasionally pass, after great exertion, attended with severe pain, but at no time after the accident was he able to empty the bladder. On the sixth day after the injury, an abscess formed over the middle of the gluteus maximus, which was opened and discharged pus mingled with urine. Through this sinus the urine has ever since continued to flow, not a drop coming in the usual way. Occasionally, this artificial opening becomes temporarily closed, and then he at once begins to suffer from the distressing effects of retention. At best, this affords a very imperfect and inconvenient outlet, almost always attended with pain; the urine dribbling away without his knowledge or control, soiling his clothing and perfuming everything about him. On attempting to introduce this sound, it readily passes down to the membranous portion of the urethra, where it meets an obstruction, which is perfectly impas-

sable. All attempts to pass this point, with any kind of instrument, are futile and useless.

Here, then, we have a case of traumatic stricture of the urethra, perfectly impermeable, of only two weeks' standing, occurring in a man otherwise perfectly healthy, and giving rise to a urinary fistula, opening on the most prominent part of the gluteus maximus.

This is one of the most perplexing cases you will ever be called upon to treat. The condition of this patient is a most unfortunate one, and we must find some way of relief. This artificial passage and opening we must endeavor to close, and, if possible, to find a passage through the natural tract of the urethra. We cannot, as in the other case, use gradual dilatation, for it is absolutely impossible to introduce, in the present condition of the patient, even the smallest sized instrument.

In this case there has been, as in the other, inflammation of the canal, giving rise to the effusion of lymph with its consequences, but the cause of the inflammation being dissimilar, the effect is also different. In the one case, the disease had existed for three years and came on gradually, and was the result, probably, of a specific inflammation of the mucous lining of the urethra. In this case, the disease was brought on suddenly by a blow, and has existed for only three weeks.

It might be a question whether or no the urethra was not, at the time of the injury, completely ruptured; but I think the fact of his being able to pass a few drops of bloody urine, and the doctor's success in placing the catheter, prove conclusively that a complete rupture did not occur at that time, but rather a laceration, or partial rupture, sufficient to produce great difficulty in urinating, and giving rise to inflammation, the effusion of lymph and complete occlusion of the canal. This is the usual course of traumatic strictures.

In the treatment of this case, gradual dilatation, I repeat, cannot be employed, and the same may be said of internal incision, forcible rupture and cauterization. Our only resource is by external division, or, as it is more commonly called, "perineal section."

After consulting with the Hospital Staff, and obtaining the consent of the patient, we have decided to attempt to divide this stricture in the middle line of the perineum, and, if possible, to reopen the track of the urethra.

The patient being fully under the influence of ether, is placed in the same position as for lithotomy, and a large sized sound is introduced to the point of stricture. The incisions are made precisely in the mesial line of the perineum, and are carefully carried down until the point of the sound is reached and the urethra is laid open. Now comes the difficult part of the operation—the search for the other end of the urethra. In this case, you perceive, the upper wall of the urethra seems uninjured, and we have succeeded in following it with this small probe, which will serve as a director. On this probe, then, we incise the canal for about two inches of its extent, and still using the probe as a guide, we can now carry the sound into the bladder without any difficulty. Withdrawing the sound and substituting this silver catheter, which we intend to leave in the bladder for the present, the operation is completed.

We shall now remove the patient to his bed, apply water dressings to the wound, and give a full anodyne for the night. At your next visit you will see the result.

June 12th. Since our last visit this patient has progressed without a single unfavorable symptom. The urine continued to flow through the artificial opening for a few days, when it ceased, and began to pass through the urethra. He is now feeling quite well, and can urinate almost as freely and easily as ever. We have advised him to use a sound occasionally, for a long time, lest the perfect healing and subsequent contraction of the wound reproduce the stricture.

Equivocal Compliments.—A servant of an old maiden lady, a patient of Dr. Poole's, of Edinburgh, was under orders to go to the doctor every morning to report the state of her health, how she slept, etc., with strict injunctions always to add, in conformity to etiquette, "with her compliments." At length, one morning, the girl brought the following startling message: "Miss S——'s compliments, and she de'ed last nicht at aicht o'clock."

PROCEEDINGS OF MEDICAL SOCIETIES.

CHICAGO MEDICAL SOCIETY.

Dr. Reid read an excellent report of a case of placenta prævia, which may be found in full on another page.

ATOMIZING TUBES.

Several members testified to the great benefit which patients, suffering from catarrhal affections not only of the nasal passages and fauces but also of the lungs, had derived from the inhalation of astringent solutions thrown from atomizing tubes in the form of spray.

CONCUSSION FOLLOWED BY JAUNDICE.

Dr. Bevan reported a case of concussion, in which, for thirty-six hours, there was great degree of coma. At the end of this period bloody serous fluid escaped from the ear. On the fourth day the patient became jaundiced, the conjunctiva and skin being deeply discolored.

Dr. Fisher had seen several cases of jaundice following concussion, and regarded the symptom as one of great gravity.

SUPPRESSION OF URINE IN CHOLERA.

Several cases were reported in which suppression of urine was a most serious complication of cholera. A case, reported by Dr. Reid, is of particular interest. A young man, previously in perfect health, had been relieved of excessive vomiting, choleraic diarrhœa, severe cramps and collapse, after the use of calomel and minute doses of opium. Reaction was re-established and bilious discharges had returned, when symptoms of suppression of the urine appeared. No urine was passed voluntarily nor could be drawn by the catheter for three days; and yet the patient was perfectly conscious, although exceedingly restless and agitated. Diuretics were freely administered; minute doses of morphia became necessary to give quietness. At the end of the third day, great prostration occurred. Although no urine could be drawn from the bladder, consciousness remained almost to the very last. Death occurred on the fourth day from the commencement of the suppression.

TYPHOID FEVER.

The appointed subject of discussion for the evening was the treatment of typhoid fever.

There was a long and interesting discussion, in which nearly all the members took part, but for which we have no space. It may be worthy of notice, however, that Dr. O. Smith and others, who had enjoyed a long experience in Eastern States, called the attention of the Society to the fact, that typhoid fever at the East was a much more serious disease than here; that the disease required very little active treatment either at the East or West, and yet at the East patients would tolerate more active treatment than here.

REPORT OF COMMITTEE ON THE NEW ANÆSTHETIC AGENT—NARCOTINA.

Dr. Bogue, Chairman of the Committee appointed to investigate the merits of a new anæsthetic, presented to the Society a few weeks since by Dr. Gilman, reported as follows:

He had witnessed the administration of the preparation to three patients requiring operations at the Cook County Hospital.

1st. A strong, healthy man, 35 years of age, inhaled the agent seventeen minutes with scarcely any effect either upon the respiration, pulse, consciousness, or sensibility. Chloroform was required for the operation.

2d. A man, similar in appearance with the above, inhaled the agent sixteen minutes with very little effect. In both these cases Dr. Gilman superintended the administration in person, and stated that continued inhalation would probably not produce anæsthesia.

3d. The preparation was administered to a little girl, 5 years of age, for five minutes, when perfect anæsthesia was produced. In this case the immediate and subsequent effects upon the patient were very satisfactory.

Several days after these experiments, Dr. Gilman again administered another preparation, said to be stronger than the first, to the first patient mentioned above. No opportunity was given the Committee of examining this preparation. In six

minutes the patient was fully anæsthetized. During the next twenty-four hours, he was affected with disagreeable nausea.

On motion of Dr. Durham, it was

Resolved, That, after an examination and fair trial by the Committee of the preparation presented to the Society under the name of Narcotina, this Society has no confidence in it as an anæsthetic.

PUNCTURED WOUND OF FŒTUS IN UTERO.

Dr. Bogue exhibited a fœtus apparently of the third month, which had been expelled from a young married woman, after the introduction of a "probe" into the uterus, by a practitioner of this city. Behind and above the right clavicle was a minute punctured wound, as if produced by the probe. Examination showed that this opening extended into the cavity of the chest.

INTERNAL USE OF CHLOROFORM.

Dr. Bogue described the effects of a teaspoonful dose of chloroform, administered in sweetened water, to a strong Irishman, for severe colic pain in the abdomen, which five doses of morphine (gr. $\frac{1}{8}$) every two hours failed to give permanent relief.

Immediately after taking the chloroform, the patient suffered a severe pain in the stomach for half a minute, when he commenced panting violently, laughing and talking wildly. He then lay upon the bed, continuing to laugh and talk about three minutes; at the expiration of five minutes more, he was fully anæsthetized. For about fifteen minutes his breathing was slow and stertorous; his pulse descending from 80 to 48 beats per minute; the veins turgid, lips and face purple.

Sinapisms were applied to the abdomen and heat to the feet. The pulse and respiration became quite normal in a few moments. Slight vomiting occurred, when the patient slept quietly nearly an hour and a half. On awaking, he remained entirely free from pain.

Several members gave most favorable reports from experience regarding the use of chloroform, in doses varying from fifteen drops to a teaspoonful, in water, every two or three hours, for nausea and for pain (colic) in the abdomen.

It is with pleasure that we insert the following correspondence:

CHICAGO, Oct. 4th, 1866.

DEAR SIR,—The students of Rush Medical College, wishing to preserve for their own benefit and gratification your highly instructive and interesting Address, delivered before them at the opening of the present term, have appointed a committee to request the same of you for publication. Therefore, we, the undersigned, as such committee, and on behalf of our fellow students, do most respectfully request that you will do them the honor to present them the manuscript of your Introductory Address for the purpose above mentioned. Very Respectfully,

E. VAN BUREN,
J. A. GROESBECK,
T. B. SPALDING,
} *Committee.*

To J. W. FREER, M. D., *Prof. Physiology and Surg. Pathology, Rush Medical College, Chicago, Ill.*

To Messrs. E. VAN BUREN,
J. A. GROESBECK,
T. B. SPALDING,
} *Committee:*

GENTLEMEN,—I have the honor to acknowledge the receipt of your note of the 30th inst., requesting a copy of my Introductory Lecture to the Session of 1866–67, in Rush Medical College. I herewith transmit to you said copy, with many acknowledgments for the flattering terms in which you have seen fit to characterize its merits. Most Respectfully,

Your Obed't Serv't,
J. W. FREER.

EDITORIAL.

BOOK NOTICES.

A Guide to the Practical Study of Diseases of the Eye, etc. By JAMES DIXON, F. R. C. S., etc. (From the Third London Edition.) Philadelphia: Lindsay & Blakiston. 1866. For sale by S. C. Griggs & Co., Chicago.

An elementary work on diseases of the eye, suitable in all respects for the use of students, would be a most valuable addition to the list of excellent text-books in the various departments of medicine.

The little work of Mr. Dixon is certainly one of the best yet published. The student who, in connection with clinical instruction on diseases of the eye, can impress upon his memory all the principles discussed in this work, will be better enabled

to study intelligently the more extended works on ophthalmology.

There are, however, many faults in the work. The description of symptoms is often very imperfect. We can scarcely conceive how a practitioner's own experience, or his knowledge of the experience of others, should lead him to almost wholly ignore the use of atropine in the treatment of iritis.

Mr. Dixon states that it is the function of the oblique muscles of the eye to keep the perpendicular diameter of each cornea (meridian of the globe) parallel with that of the other, when the head is inclined from side to side towards the shoulder. We have been taught to believe this theory of the function of the oblique muscles had long since been absolutely overthrown by direct positive proof, and that the true function of these muscles consists in maintaining the meridian of the two globes parallel in the movements of the eyes upwards or downwards to the left or right.

ST. LUKE'S FREE HOSPITAL.

The second Annual Report of this Hospital has been received. Although this most excellent charity, by its special charter, is wholly under the control of the Protestant Episcopal Churches of Chicago, and principally supported by them, it is maintained for the needy poor of Chicago without regard to religious faith. It will be observed, that of 198 cases tabulated in the annual Report, only 33 were Episcopalians.

The Hospital is under the management of a Board of Trustees and a Board of Direction, the last being composed of ladies.

The Physician-in-Chief is John Owens, M.D. The Consulting Physician is Prof. J. Adams Allen, M. D.; Consulting Accoucheur, Prof. W. H. Byford, M. D.

There are 49 obstetrical cases recorded in the Physician's report.

Students are permitted to visit the Hospital, on applying to the attending Physician.

We can scarcely conceive of a nobler object, for which a

Christian denomination can labor outside of its special church work, than for the establishment and support of a good hospital for the benefit of the sick poor, however small it may be.

We believe it is often as great a charity to prevent mental as physical suffering. There are grades of society even among the poor, which should, to a certain extent, be respected.

There are very many ignorant poor, who, from their habits and associations through life, are perfectly content to become patients in our general hospitals, if they can be persuaded that "the doctors" will not "try experiments on them," and will employ their best skill in endeavoring to relieve them.

There are also other classes who, from their education and relations in society, without the charge of false pride, would suffer mental distress and feel degraded on being thrown into the common wards of a pauper hospital. Every practising physician is constantly observing, for instance, widows, left poor and with children, parents with large families of children, who have neither the accommodations for sickness, nor the means of paying a physician a tithe of his fees. There are respectable women about to be confined, whom circumstances have suddenly deprived of a home; there are seamstresses, shop girls and young men often disabled by sickness or accident, in large numbers in our city, who have but the doubtful comforts of a boarding-house. Such patients are often able to pay a part or even the whole of their expenses at such hospitals as we have described. The benefits which all these classes of sick poor receive at such hospitals as St. Luke's and the Hospital for Women and Children are almost incalculable.

We hope to see an increase, within certain limits, of small hospitals in each division of Chicago, under the patronage of our different churches.

The sick can then be conveyed more readily and more conveniently to themselves and friends to comfortable quarters. The medical attendants can be physicians residing near the hospitals, and easily called in cases of emergency.

We will call the attention of our readers in our next issue to the other hospitals of Chicago.

...CURING THE MONTH OF

...ever's Report:

...f age, 329; from 5 to
...36; from 20 to 30 years,
...40 to 50 years, 68; from
... years, 22; from 70 to 80
... Unknown, 6. Total, 739.

... parts of the United States,
... Denmark, 2; England, 15;
... 122; Holland, 6; Ireland,
...and, 3; Russia, 1; Sweden,
... New Brunswick, 1; Wales,

... 14; Burned, 1; Childbed, 5;
...ous, 36; Cholera Infantum, 6;
... 20; Convulsion, 20; Cramp, 6;
... Drowned, 7; Fever, 70; Killed,
..., 1; Stillborn, 6; Summer Com-
...er causes, 161. Total, 739.

...S OF CHOLERA.

... States, 33; Bohemia, 9; Canada, 2;
... ; France, 2; Germany, 110; Hol-
... Norway, 19; Poland, 1; Sweden, 5;
... 1; Scotland, 1; Italy, 1; unknown,

...s, 15; from 5 to 10 years, 22; from 10
... 20 to 30 years, 64; from 30 to 40 years,
...rs, 40; from 50 to 60 years, 23; from
...m 70 to 80 years, 1; unknown age, 11.

...e distribution of cases in the several Wards:

Seventh, . .	21	Thirteenth, .	3
Eighth, . .	8	Fourteenth, .	35
Ninth, . . .	5	Fifteenth, .	20
Tenth, . . .	5	Sixteenth, .	14
Eleventh, . .	19	Unknown, .	2
Twelfth, . .	37		
Total, ...			272
. .	143	Sex unreported, . . .	4
.	125		
Total, ...			272

...ascertained during the month, . 166

MORTALITY FOR OCTOBER.

Causes of Death.—Accident, 11; Bronchitis, 1; Cancer, 2; Childbed, 3; Cholera, 673; Cholera Morbus, 15; Cholera Infantum, 9; Congestion of Lungs, 1; Congestion of Brain, 4; Cold, 1; Consumption, 43; Convulsions, 46; Croup, 8; Delirium Tremens, 2; Decline, 4; Diarrhœa, 21; Diphtheria, 12; Disease of Bowels, 1; Disease of Brain, 3; Disease of Heart, 6; Disease of Liver, 4; Disease of Lungs, 6; Disease of Spine, 1; Disease of Throat, 2; Disease of Hip, 2; Dropsy, 6; Drowned, 4; Dysentery, 10; Erysipelas, 1; Fevers—childbed, 2; remittent, 17; scarlet, 8; typhoid, 38; typhus, 1; not stated, 12; Hemorrhage, 1; Hydrocephalus, 1; Inflammation, 2; Inflammation of Brain, 12; Inflammation of Bowels, 7; Inflammation of Kidneys, 5; Inflammation of Lungs, 3; Intemperance, 1; Marasmus, 2; Measles, 6; Neuralgia, 1; Old Age, 13; Poisoning, 2; Pleurisy, 2; Phthisis Pulmonalis, 1; Rheumatism, 1; Scrofula, 2; Still-born, 9; Summer Complaint, 38; Suicide, 1; Teething, 18; Tuberculosis, 2; Whooping Cough, 19; Worms, 1; Wound, 1; Uremia, 1; unknown, 37. Total, 1170.

Nativities.—Chicago, 331; other parts of the United States, 260; Bohemia, 24; Belgium, 2; Canada, 13; Denmark, 3; England, 39; France, 3; Germany, 223; Holland, 2; Ireland, 168; Norway, 44; Nova Scotia, 1; on the sea, 1; Poland, 1; Spain, 1; Sweden, 23; Scotland, 8; Switzerland, 1; Wales, 2; unknown, 20. Total, 1170.

Ages.—Under 5 years, 329; from 5 to 10 years, 95; from 10 to 20 years, 66; from 20 to 30 years, 202; from 30 to 40 years, 190; from 40 to 50 years, 116; from 50 to 60 years, 72; from 60 to 70 years, 47; from 70 to 80 years, 22; from 80 to 90 years, 5; from 90 to 100 years, 1; unknown age, 25. Total, 1170.

The deaths were divided throughout the city as follows: North Division, 311; South Division, 351; West Division, 503; unknown, 5. Total, 1170.

The number of deaths during the corresponding month of last year was 360.

OBITUARY.

In the *Nevada* (California) *Daily Transcript* of Sept 1, 1866, we read the following:

DIED —In this city, Sept. 1st, 1866, Dr. EDWIN G. MEEK, aged 44 years.

Dr. Meek was co-editor of this Journal, with Dr. John Evans, from April, 1849, to February, 1851. He had previously contributed several interesting papers for the Journal, among which

was one on "The Physical Condition of the Aborigines, with an Account of their Practice of Medicine," written while he was stationed at the Choctaw Agency, West Arkansas.

In his valedictory of February 15, 1851, on resigning his position as editor of this Journal, he states that he is about to leave Chicago for the practice of medicine on the Pacific coast.

The success of the Journal during the period of his connection with it, depended, in a great measure, upon the labors of Dr. Meek.

The deceased was regarded as a man of fine abilities and excellent education, and during his residence in Chicago, received the confidence and esteem of the profession.

A Doctor's "Line:" Illustrating a New Mode of Getting a Prescription from the Apothecary's.—In a not very populous district in the neighborhood of the Scottish town of Dumfries, there resides a carter, named Brown, with his wife and mother. One day lately the old lady took alarmingly ill; the son hurried to the town and returned with a physician. The patient was examined, and a piece of paper called for, on which to note the remedies to be administered. Not a suitable piece of paper was, however, to be found in this isolated domicile, and singular enough, the doctor had not a scrap in his possession. "Have you a piece of chalk, then?" somewhat gruffly inquired the M. D. He was answered in the affirmative, provided with the article, wrote the prescription out on the door, and, taking leave, told his employer to get the parish schoolmaster to transcribe it. Brown, however, was not disposed to put himself under obligation to even such a genial personage as the village dominie, and, though he may not have heard of Mr. Smiles' "Self-Help," he determined on a course that showed he was at least familiar with the adage, "He is best served who serves himself." The fastenings of the hinges were immediately removed, the door taken down, laid on a barrow, and wheeled into town with all possible haste. Arrived at Dumfries, he strode into an apothecary's shop with the door on his shoulder, and the astonishment of the knight of the pestle and mortar, when it was placed on the counter with the words, "There's a line from Dr.——," may be better imagined than described. Apothecaries, however, are not quite so particular as bankers as to what they honor, and our friend received his medicine without being subjected to many queries.

Sign of the Times.—In one of the busy thoroughfares of Chicago may be seen the following dubious announcement: "Cholera cured without fail."

THE DEATH OF DR. BRAINARD.

Prof. DANIEL BRAINARD died in this city, October 10, 1866. Less than one month previously, after a prolonged absence in Europe, he returned to his home, bringing renewed health and unwonted zeal for the prosecution of those labors which have made his name a household word throughout the country.

His health had been somewhat impaired for a year previous to his departure for Europe, but not sufficiently to prevent him from doing an ordinary amount of mental and physical labor. His disease was a functional derangement of the kidneys, diagnosticated by Trousseau and other distinguished professors in Europe as oxaluria. He spent most of his time while abroad traveling with his family in Italy and Switzerland.

The few days that intervened between his arrival and death was spent mostly at his office and in the visitation of friends. On Tuesday afternoon, October 9th, he lectured to the class at the College, devoting a part of the hour to a subject not connected with his branch—the epidemic of cholera then prevailing at Chicago. He spent the evening at his office, conversing with a number of friends. He retired at 11 o'clock with every appearance of perfect health. During the latter part of the night he had an attack of diarrhœa, which he checked by an enema of vinegar of opium. He arose the following morning and partially completed his toilette, read the morning paper, and commented on the election news—the only indication of

illness being a slight moisture of the skin, which he attributed to the opium taken during the night. He took a bowl of chicken broth for breakfast, and remained comfortable until about 9 o'clock, when he was seized with a most violent paroxysm of vomiting, followed soon after by a return of diarrhœa, both of which continued at short intervals for about two hours, when they entirely ceased. During that time he sank rapidly, and by 2 o'clock was in profound collapse. He ceased to breathe at a quarter past 9 in the evening of October 10, 1866.

This melancholy event excited a profound sensation in our community. The day was dark and gloomy; the epidemic was at its height; the ensigns of mourning were overshadowing the public buildings, in memory of those officers of the city government whom the pestilence had stricken. The members of the medical profession gathered at the Court House to unite in their testimonials of respect for the honored dead, and on the morrow, a solemn assembly at St. James's Church, told how deep was the feeling of the loss which we have sustained.

It is yet too soon to discourse calmly upon the life and the character of our departed teacher. To narrate the events of that career, would be to touch upon all that pertains to the history not only of surgery, but of civilization in the Western States. Coming from the East, thirty years ago, Dr. Brainard discovered in the little town under the walls of the old fort near the river Chicago, an opening—a widening field for the exhibition of his genius. He rose at once to the leadership of his profession, and the fame of his skill outstripped even the marvelous growth of his chosen city. Twenty-three years ago, he laid the foundation of Rush Medical College, an institution which stands to-day, the proudest monument of its author's fame. Twenty-three years ago, he was the leading spirit in the management of this journal, and from that day to the present, it would be hard to find anything of value to the profession in the Northwestern States which cannot be traced directly to its source in the teeming brain of this wonderful man.

From the *Genealogy of the Brainard Family*, we quote the following sketch:

Dr. Brainard was born, May 15th, 1812, at Whitesborough, Oneida County, N. Y. He received the advantages of the Academy or High School of that town; and commenced the study of his profession there in 1829, but soon went to Rome, where he pursued them further, enjoying at the same time the benefit of lectures. He attended two courses, one at the Medical College in Fairfield, and the other at Jefferson Medical College, Philadelphia, where he was graduated in the spring of 1834. He then returned to Whitesborough, where he remained two years with his former preceptor, nominally in practice, but mostly engaged in the study of the Latin and French languages and professional teaching. In the spring of 1836, he gave his first course of lectures, which was on anatomy and physiology, in the Oneida Institute. In August, 1836, he removed to Chicago, where he remained until October, 1839, when he took a voyage across the Atlantic and visited Paris for the purpose of improving himself further for his profession, where he remained until April, 1841, when he returned and resumed his practice. Soon after this he was appointed Professor of Anatomy in the University of St. Louis, where he gave a course of lectures in 1842.

He was a Corresponding Member of the Society of Surgery in Paris, and of the Medical Society of the Canton of Geneva. His essay on the treatment of ununited fractures and deformities received the prize of the American Medical Association at its meeting in St. Louis, May, 1854. During nearly the whole of the administrations of Presidents Pierce and Buchanan he held the position of Surgeon to the Marine Hospital, and was, for a long time, Surgeon of the Mercy Hospital, etc., in this city.

February 5, 1845, he was married to Evelyn Sleight, and has had four children: Julia, Edwin, Daniel and Robert P. Brainard, the last two of which are dead.

His wife and surviving children are still in Europe.

Dr. Brainard was blessed with an iron frame, and a commanding person. His figure was tall and stately; his manner was the soul of dignity. One could not enter his presence without feeling a sense of the greatness of the man. As a teacher he stood without a rival. The order, the method, and the clearness of his lectures have never been surpassed. As a writer he is best known by the essays which have been scattered through the medical journals of the country. The great work of his life, though long announced, remains incomplete—cut short by his untimely death. As a scholar his attainments were not bounded by the limits of his profession. There was no department of science which he had not explored; there was nothing too low, nothing too high, for the range of his observation. Strength and perseverance were the pillars of his fame, and to no human power did they ever yield.

A meeting of the members of the medical profession was held at the Council Chamber, at 4 o'clock on the afternoon following the death of Dr. Brainard, for the purpose of taking proper action in relation to the sad event.

On motion, Dr. C. H. Duck was elected Chairman, and Dr. Charles G. Smith, Secretary.

The Chair then stated that it was the object of the meeting to pay the last sad tribute to a departed brother.

Dr. Brock McVickar rose and said:

The occurrence which has drawn us together has been recited in brief and emphatic words in our city papers to-day, "Died, October 10th, 1866, of cholera, Daniel Brainard, M. D., aged 53 years." Gentlemen, when we last assembled in this hall, as members of the profession to which we belong, we came together to record our respect and consideration for a departed brother, who had been taken away from us in the spring time of professional life, with the future all bright and promising before him. To-day we come to perform the same sad service for another; one older in years and full of honors, one whose ambition and aspirations for the future had become to him the fruitions of the present, one who stood, with well-earned laurels, at the head of the profession which he dignified and adorned. Gentlemen, Daniel Brainard was no ordinary man. He was possessed of sterling abilities, quickened and developed by culture and study; of untiring industry; of unremitting perseverance and unflagging zeal in the pursuit of knowledge. He was cold and reticent at times, but what seemed coldness to many was but the absorption of a strong and earnest nature, pressing forward to the attainment of the high mark he had proposed to himself. He had an abiding hatred for pretenders and shams, and looked with little favor upon those who followed their profession without seeking to rise above its daily routine of duties. When once satisfied of a man's integrity, earnestness and intelligent devotion to his profession, he was his friend. With Dr. Brainard, with but slight interruption, my relations, personal and professional, have always been of the most agreeable character; and at the time of his death, they were particularly so. I shall never forget how, during my last interview with him, a few days since, I was impressed with respect and regard for him as a gentleman, courtly in his manners, polished by foreign travel and culture, the peer of the noblest in the land. His example, Gentlemen, may serve to illumine the pathway of the student, to quicken him to higher and better efforts, and give him assurance of success. Of Dr. Brainard's position, jealousy has been manifested by smaller minds, many times falling under my own knowledge. He was restless sometimes under this jealousy and its resulting injustice, and that restlessness, at an early day, toned and tempered his feelings; but, when a man has attained the measure of success which fell to his lot, and which he earned so faithfully, he can afford to smile, instead of being annoyed, and look down, as he did ultimately, with the calm consciousness of

superiority, obtained by his own efforts and the exercise of the powers and faculties given him by God. But he is gone from us, and the places which knew him once shall know him no more. Peaceful be his rest, green be the turf which grows above him, and bright be the place which he shall hold in the memory of friends he has left behind.

I move you, sir, the appointment of a committee of five to draft resolutions expressive of the sense of this meeting on the occasion of the decease of our brother, Daniel Brainard.

This motion being carried by a unanimous vote, the Chair appointed, as such committee, Doctors McVickar, H. A. Johnson, Trimble, Charles G. Smith and G. C. Paoli.

The committee subsequently reported the following:

Resolved, That in the dispensation of Divine Providence, which has removed from our midst our deceased friend and brother, Daniel Brainard, we recognize the hand of Him who does everything well, and bow submissively to His will.

Resolved, That our deceased brother, by his natural powers of mind, by his capacity as a teacher, by his untiring industry, by his unwearied zeal and assiduity in the profession of which he was a distinguished member and ornament, has acquired a position of character and usefulness, recognized not only by his colleagues at home, but by the profession throughout the world.

Resolved, That in his example we read the great lesson of encouragement in the paths of duty and honor, and while humbly seeking to imitate it, we hold it up to the consideration of members of his own and other professions everywhere; and that in his death the profession of our city and the Northwest has suffered an irreparable loss.

The resolutions were adopted.

Dr. G. C. Paoli paid the following tribute to the memory of the deceased:

There is a certain sadness and solemnity in our meeting to-day, to pay our respect to our departed friend and professional brother.

The profession deeply feel the loss they have sustained in Professor Brainard's death, for he was no ordinary man. Highly gifted by nature, his powers were cultivated by study, and from pure love of the profession, he devoted himself with untiring zeal to the work of instruction. As a surgeon, he had few equals—as an operator, he was cool, cautious and bold.

As a lecturer, he possessed, to a remarkable degree, the rare talent of profound clearness in communicating his ideas to his listeners, and the most difficult subject in surgery he always imparted to the student with a certain plainness and simplicity, and excelled all other lecturers whom I have heard in condensing the greatest amount of instruction in the fewest words.

He was an acute observer of nature, which made him, as a lecturer, at once practical and original. Rush Medical College possesses several eminent men, but Brainard stood foremost among them. His reputation also stands

high abroad, and though he had lived long enough to win fame and honor, his life was all too short for humanity. His teachings belong to the future, and surgical annals will place him amongst the greatest surgeons of the nineteenth century.

On motion of Dr. Johnson,

Resolved, That a committee of five be appointed to take measures to procure a marble bust, or some other permanent memorial, of the late Dr. Brainard.

The resolution was carried, and the following gentlemen were appointed the committee: Dr. R. C. Hamill, Dr. H. A. Johnson, Dr. J. V. Z. Blaney, Dr. N. S. Davis, Dr. DeLaskie Miller.

At the request of Dr. Powell, nephew of the deceased, six of the twelve pall-bearers were selected by the meeting. They were as follows: Drs. Hitchcock, Duck, Eldridge, Hamill, Paoli and Johnson.

At a meeting of particular friends, the following distinguished citizens were also selected as pall-bearers: His Honor the Mayor, J. B. Rice, Hon. Charles Walker, Hon. J. Young Scammon, John L. Wilson, Esq., Dr. C. V. Dyer, and Julian S. Rumsey, Esq.

At a meeting of the Faculty of Rush Medical College, held at 12 o'clock of October 11th, to receive the announcement of the death of Prof. Daniel Brainard, M. D., President of the Faculty and Professor of Surgery, the following resolutions, reported by a committee of their number, were unanimously adopted:

WHEREAS, It has pleased Divine Providence to remove, by the hand of death, our revered President, Daniel Brainard, M.D.;

Resolved, That in his death we, as a Faculty, have sustained a shock which we feel that words are inadequate to express.

Resolved. That we mourn his loss as of a colleague, a brother, a friend—and a chief—a loss that we feel to be irreparable, not only to ourselves but to our alumni, our class, and to the profession of the world.

Resolved, That in the death of Daniel Brainard, the profession at large has lost one of its most distinguished members, and one of the most useful and devoted of its co-laborers, and that his contributions to its advancement and progress, will perpetuate his memory in the history of the profession.

The funeral ceremonies were conducted at St. James' Church, cor. of Huron and Cass streets, by Rev. Clinton Locke, Rector of Grace Episcopal Church. The occasion was a solemn and

impressive one, and as such it was felt by all who were present. It was apparent that the sudden death of this honored and eminent man had cast a gloom not only upon those of his profession, but to a certain extent over the whole city.

At 10 o'clock a number of the friends of the deceased met at the residence of Colonel J. H. Bowen, on Michigan avenue, from whence they proceeded to the church to receive the remains.

At 11 o'clock the coffin was taken from the funeral car by the pall-bearers, and carried into the church. In the porch stood ladies, each with a floral wreath or immortelle, which they laid upon the bier as it passed. At the same time the clergyman proceeded to read the burial service, commencing—"I am the resurrection and the life." The coffin was borne along to the front of the altar, followed by the members of the medical profession in a body, and the students of the College.

After the usual prayers and the reading of the Scriptures, Rev. Clinton Locke delivered the following funeral discourse:

Well does Horace say that "gloomy and impartial death knocks at the door of the royal palace as well as at the door of the cabin of the pauper." Our Last Enemy, as the Scriptures expressively call him, is not daunted by station, nor careful of feelings. He would enter a congress of the world's monarchs, lay his hand upon the shoulder of its mighty head, and perforce, the stricken one must lay aside the crown and sceptre, pomp and power, and follow him. He is utterly regardless of the crying need there may be for a man, his brilliant acquirements, the usefulness of his position, the void his death will create; relentless, immovable as a heart of marble, he moves among men and summons them away. Mediæval tradition loved to represent him under the figure of a woodman walking through a forest, now cutting down a tender sapling, now a hard and sturdy oak, now cropping a just opening flower, and now overturning an aged tree tottering in the wind. Cruel and mysterious being, we shudder when we think of him and all his loathsome adjuncts, and indeed the misery and the wretchedness he causes would be without one single ray of comfort if the eye of faith did not see standing beside his skeleton the all-glorious figure of the Lord of the Resurrection, bearing the trophies of his victory over death, pointing to the stone rolled away from the sepulchre, and proclaiming that "Christ being raised from the dead, death hath no more dominion over him; that as in Adam all die, even so in Christ shall all be made alive." This alone can enable us to think of death with composure. His victory is only for a time. He cannot separate us for eternity from those we love. He cannot prevent our individuality from vesting itself in the mystic garment of its celestial state, and living again forever,

invulnerable to any dart of his. We can heap the mound over the coffins of our dearest ones, with a firm hope below all our tears that no power can kill the soul; deathless, immortal, it is already in the place of departed spirits, awaiting the judgment; already, if it has been faithful, enjoying a foretaste of the blessedness of Heaven; and if faithless, the premonitions of supreme despair.

Busy, indeed, my friends, is the woodman death now among us. Fast and thick his strokes fall upon the trees of the forest, and while for all we feel a general sorrow, yet, when there comes crashing down one of the noblest oaks in all the woodland, whose shaft had pushed up so high, whose branches spread out so wide, we cannot help pausing a moment to grieve over the loss, and admire the beautiful proportions. The simile is not out of place, I feel, at the funeral service at which you are now assisting. The presence of so many well known public men, so many of the first members of the medical staff of the city, even if I were totally ignorant of the name and fame of the tenant of this narrow house, would assure me that this was no common death, no every-day bereavement. But this crowd of honorable and distinguished mourners was not needed for that. The dead before us had not only a Chicago, but an American, not only an American, but a foreign reputation. He had earned for himself the foremost place in his peculiar department in all this vast Northwest. He took rank with such men as Parker, Post and Gross, and when in after times some chronicler gathers up the names of the most distinguished surgeons, the name of Brainard will be found the peer of Astley Cooper, John Hunter, and the elder and younger Larreys. With the date and place of his birth, and the circumstances of his education, the daily press has made you familiar. He did not, like so many, consider that when he left the lecture-room, to assume the M.D., his studies were over, and he perfectly competent to treat everything from a felon up to a compound fracture; but throughout his long life he availed himself eagerly of every opportunity of instruction. The great schools of Paris knew no more assiduous student, and he had just returned from another visit to those splendid centres of medical learning which the experience of centuries has built up abroad. It was in the branch of surgery that our departed friend gained his first laurels. His favorite department, he loved it to the end with all the ardor of a young enthusiast. He was a brilliant operator, firm in touch, rapid in movement, never flurried by even the most trying crises, perfectly conversant with what was to be done and how to do it. Possessing beyond the methods of the schools that inventive faculty, that power of combination which alone can make a man great, he had risen to the very head of his profession, and what is unusual, he had amassed a large fortune by his professional exertions, a much rarer thing than persons outside the medical profession are apt to think. Not only as a surgeon, however, did he merit distinction, but as a man of science, particularly in the departments of natural history, anthropology, botany and geology. He was an authority in all these points, and amid all the cares of his immense practice, kept himself freshly informed of the latest discoveries in these sciences so near akin to his own profession. He was, moreover, a man of extensive general information, of fine literary

taste, well informed, and thoroughly interested in the commercial and municipal relations of this city, with which he has ever been identified. His taste and acquaintance with sculpture and painting was that of a thorough connoisseur, and he has left among his most cherished possessions works of art of the first class, of which Chicago may well be proud. His greatest monument will be the college of which he was the founder. Standing in its halls and asking of Brainard, the answer might well be the epitaph of Sir Christopher Wren—"*Si quæris monumentum circumspice.*" It may be out of place, but I cannot help suggesting that henceforth that institution should bear his name, that legal enactment should give a right henceforth to say, "Brainard Medical College."

To strangers he may have seemed cold and reserved, but it was because he had no time for trifling, or for the bald common-places of society. His friends never found him otherwise than genial, polished and ready with his counsel and his aid. Many a young man among the twelve hundred who have come under his care, knows how freely his purse was open to his necessities, for he was a generous, cheerful, open-handed giver, and he took above all the greatest delight in helping onward a struggling youth, desirous, and yet pecuniarily unable to acquire the necessary information. One lesson his life teaches which should sink deep into the hearts of all the younger members of his profession. He gained his place by the hardest, the most exhausting labor. He may have had natural genius, but he looked for success to application, and he was never for one moment idle. He was not, what I wish I could say of him, a devout Christian, but he was no disregarder of religion, no scoffer at its doctrines, and he was far from having those materialistic views so common with many of his brethren. The Bishop of the Diocese was for years his intimate friend, and my place would have been his if he could have been here.

He is gone. Suffering humanity will feel the void. The great and noble profession he so adorned will miss his voice, the college of his love will sorrow over its bereavement, a far-off family will feel a double desolation when the sad news of a husband and father's death reaches them amid a strange city; and we stand silent and humbled when we think that he, who had met and conquered death so many times for others, who was fully armed with every weapon which could ward off from man the arrows of the destroyer, to whom so many grateful hearts among poor and rich turn as their preserver from a premature grave, should have been forced to throw down his arms, and in a few swift hours to bend his neck to the blow of relentless death. How truly it shows the vanity, the nothingness of human knowledge.

At the conclusion of the address, the remains were taken back to the funeral car, and the cortege, composed of about thirty carriages, proceeded to the old City Cemetery, where the remainder of the funeral service was read. The remains were then placed in the vault, where they await the wishes of the friends of the deceased.

A special meeting of the Sangamon County Medical Society was held in the city of Springfield, October 13th, at 3 P. M., Dr. Wright, of Chatham, Vice-President, in the Chair.

On motion of Dr. Wardner, the Chair appointed a committee of three to draft suitable resolutions regarding the death of Professor Daniel Brainard, of Chicago. The committee consisted of Drs. Wardner, Griffith and Bailhache.

On motion of Dr. Townsend, Dr. Wright was added to that committee.

The committee reported back the following preamble and resolutions, which were unanimously adopted:

WHEREAS, It has pleased an all-wise Providence to remove by death, Daniel Brainard, M.D, late President and Professor to Rush Medical College, whose ability and professional attainment gave him high rank in medical science, not only among friends and acquaintances, but among all devotees of the science he so much honored; therefore,

Resolved, That in the death of Dr. Brainard, the profession is bereft of an able teacher, science of an ardent student, and the community in which he lived of a valuable citizen.

Resolved, That we tender to the Faculty of Rush Medical College, our condolence for the loss of its President, and one of its most honored teachers.

Resolved, That we tender to the afflicted family our sympathies in this, their hour of sad bereavement.

Resolved, That the Secretary furnish a copy of these resolutions to the family of the deceased, and the Faculty of Rush Medical College; also, a copy to each of the papers of this place, and to the CHICAGO MEDICAL JOURNAL and *Chicago Medical Examiner*, for publication.

N. WRIGHT, *Chairman*.

A. L. CONVERSE, *Sec*.

NEW ORLEANS, Oct. 22, 1866.

DR. DELASKIE MILLER:

Dear Sir,—By your favor of the 15th inst., I learn with profound regret the death of Prof. Brainard, a name dear to science—an ornament to our profession.

In labors great, in knowledge deep,
His work well done—let Brainard sleep;
Erect his tomb hard by the lake,
Where waves on waves resounding break,
And chant upon the shelly shore
His *requiem* forever more.

BENNET DOWLER.

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ORIGINAL CONTRIBUTIONS.

Localized Bodily Movements: Their value as an aid in the treatment of Tuberculosis. By ROBT. N. TOOKER, M. D., Richmond, Ind.

In the August number of the *New York Medical Journal* is a review of a work just issued from the London press, by Ste phen Henry Bigg, on the subject of "Localized Movements in the Treatment of Deformities and Chronic Diseases."

In that article the reviewer seems very favorably impressed with the theory of the practicability and usefulness of the author's system of practice. The idea of influencing the muscular system, and through it, the nervous and sanguineous, by means of external manipulations, is neither new nor confined to European practitioners. The treatment of paralysis by such forms of exercise as tend to stimulate nutrition in the cold and useless limbs, has long been a favorite adjunct of treatment with the more successful practitioners.

So also in certain forms of dyspepsia, and in nervous disorders, "fresh air and plenty of exercise" has been considered a *sine qua non* of cure. Indeed, the value and sphere of these "aids" has been found so great, that there are not a few in the profession who would more willingly dispense with medicine-case formulary than with them, in the treatment of chronic diseases.

The fact, however, that charlatans and quacks have, from time to time, usurped control of the idea of using bodily movements in the cure of disease, has led physicians, as a general thing, to look upon them with suspicion. Yet physicians, no less than the public, have stood amazed at the results often achieved by these same pretenders, who have cured, by "laying on of hands," and by various mysterious passes, cases that have baffled sound learning and large experience. So often is this witnessed, that, doubtless, there are many who, like the writer, have been forced to ask the question, "Can we not, as regularly educated and authorized practitioners of medicine, make use of whatever is proven to be good, without falling, in the estimation of our compeers, into the mire of quackery and empiricism?"

I propose, in this present paper, to give a condensed statement of what, from a somewhat extended practice during the past few years, and a very extended research among the writings of standard authors, I have been led to adopt as the correct theory of the causes and treatment of pulmonary tuberculosis.

The importance of the subject cannot be over-estimated. The mortality report of Cincinnati for the month of August last, shows *forty-four* deaths by consumption, which is more than *treble the number by any other disease excepting cholera*, and this, at a season of the year when febrile and bilious diseases are especially prevalent. The thousands who die every year by the hand of this fell destroyer in spite of the "best medical talent," and the accumulated experience which two thousand years have given us, are sufficient proof that there needs to be a better notion of the malady itself and of the appropriate remedy therefor than is generally entertained regarding them.

I shall not waste time and space here in rehearsing symptoms with which every one is familiar.

I proceed immediately to the discussion of the causes upon which the disease depends, and the conditions which are incident to it.

I advance the proposition, then, that whether the cachexia be hereditary or acquired, the disease itself is essentially and pre-eminently dependent on *vitiated nutrition*. In a disturbance

of this grand function lies the prime cause of the disease, and those who seek in the lungs alone for either causes or effects will go wide of the mark. Dr. Thompson, chief physician to the London Hospital for consumption, who is a strong advocate of the virtues of cod oil, explains its mode of action by assuming that it assists in the manufacture of the blood corpuscles which are notoriously deficient in the blood of consumptives. Prof. Tanner says, "Tuberculosis is a blood disease, of which tubercle or tuberculous matter is the specific product." And when he speaks of the treatment, he says, emphatically, "when tubercles have become developed, we must first of all *endeavor to improve the general nutrition.*" Dr. Chambers says, in his late work on "The Renewal of Life:" "It is by aid of the digestive organs alone that consumption can be curable."

Medicines addressed to other parts may by useful sometimes indirectly, but they more commonly impede the recovery; whereas aid judiciously given in this quarter is always beneficial and usually successful. *We must leave the respiratory organs alone and direct our thoughts to the organs of nutrition, which will receive with thankfulness and return with interest any care we bestow upon them.* Authorities might be multiplied, if these were not sufficient to prove the assertion that it is not the lungs which are at fault, but other organs performing different functions. It is rather digestion, assimilation and absorption, in a word, "nutrition." The prevalent practice, therefore, of doctoring the lungs with expectorants and nauseants, either in the form of inhalations or of draughts internally administered, cannot be too strongly deprecated.

The lungs are but suffering the effects of causes foreign and remote, and it is only by correcting the causes of any trouble that we can expect to cure.

No wonder the efforts to cure consumption have met with failure, when the tubercles already formed have received the sole attention, and the tendency to new formations has been disregarded, or, at most, treated as of secondary importance. The enormous amount of lung surface available for ærating purposes, render it possible for large portions of this surface to suffer destruction without serious consequences. I believe that

five-eighths of the lung tissue may be totally destroyed or rendered useless, without shortening life or materially impairing health, *provided the remaining three-eighths* remain intact. It is only when there is not enough well surface left to carry on the ærating process, that nature succumbs to the disease. So that even after large portions of the lungs have been involved in the destroying march of the disease, if we can arrest the further deposit of the tuberculous matter, we may safely assume that nature will adapt herself to the new condition of things, and so far as life and health are concerned, a cure will be effected. To show that the disease is not confined to the lungs, the fact is an established one, that when deposits of tuberculous matter are found there, (and sometimes when they are not,) they are also found in the liver, the spleen, the kidneys; in the various glands, the sheath and coverings of muscles, and even in the bones, as in Pott's disease of the spine.

The disease is then general and constitutional. Nutrition is at fault—and it is to nutrition that we should direct our attention and all our remedial efforts. Before speaking of the means at our disposal for correcting this evil tendency on the part of the constitution, which we have seen to be the cause of all this trouble, I wish to speak of the action of oxygen on the organism, since very much of the value which will be given to the treatment soon to be advocated, will depend directly on the uses which we assign to this element. The opinion is a very prevalent one that the consumptive patient is dying for want of oxygen; that the blood is but imperfectly oxydized, and that any agent that will supply this deficiency, will in so far be pregnant with good. With this idea, almost every *oxide* that chemistry could suggest has been tried, and abandoned for some new preparation which promised to furnish in a better form this indispensable element. With the same end in view, many excellent practitioners have advocated the use of inhaling tubes, spirometers and chest-expanders, which, by enlarging the capacity of the lungs, would increase directly the amount of oxygen inspired. Granting for a moment that the *tissues* do stand in need of oxygen—for it surely is not simply to pass into the stomach or the lungs and out again—it is difficult to see

how this oxygen can ever reach the tissues in the absence of the blood corpuscles which are the oxygen carriers, or when these blood corpuscles are as largely increased in number as they are in the blood of consumptives. But so far from there being this need for more oxygen, I shall endeavor to show that the reverse is the case; that the system needs less rather than more, and that the use of inhaling tubes and spirometers is not only reprehensible, from the fact that this forcible insufflation is liable to break down the texture of the lungs by over-distension of the air cells, as has happened in numerous instances, but for the reason that an increased volume of air is not desirable but positively detrimental.

If the consumptive does need more air, it is because he requires more of the oxygen which the air contains, for, although the atmosphere contains other elements, neither chemistry nor physiology point out their uses. They are not as yet understood. But chemistry and physiology teach us that the process of oxydation is, in part at least, a *combustion process*, or, if not literally and strictly so, it may, for all practical purposes, be so considered. For although it is clearly proven that the inspired oxygen does not combine directly with the carbon of the blood while in the lungs, and that the production of blood does not take place here, as was formerly supposed—thus making the lungs the fireplace of the system—yet it is admitted on all hands that the oxygen does serve the double purpose of a vitalizer and a devitalizer or decomposer, and it is more than probable that this latter is the greater and more important part of its function. In the process of waste which the several tissues are constantly undergoing, and by which their particles are constantly becoming useless and burdensome, it is the function of the oxygen to so combine with this debris as to form new and soluble compounds, which the various excretory organs can eliminate from the system, to make room for the newly vitalized matter which are to supply the deficiency. In health this oxydizing process goes on but slowly, because the tissues have, by virtue of the vital principle which pervades them, something of a resistant power against the oxygen, which otherwise would quickly destroy them, and

they thus preserve their integrity for a longer period than when the system is depressed by disease, and the resistant power is in consequence lowered. This is illustrated in the phenomena of external injuries. When the tegumentary tissues are so injured by violence or disease as to lose this power of resistance to the action of oxygen, then ulceration or slough takes place, and although the action of the oxygen contained in the atmospheric air is invigorating and beneficial to these tissues in health, yet when their vitality is thus lowered, exposure to it kills them still further, and may soon alone prove fatal, as we see in cases of extensive burns. This illustrates the utility of the practice in smallpox of painting the pocks over with collodion or caoutchouc, to preserve them from the air, and thus prevent the deep ulcerations which would otherwise ensue.

It must be borne in mind that the condition of inflamed tissues is materially changed from that of health, and their natural susceptibilities become from this cause so morbidly increased that even their natural stimuli cannot be tolerated, but if allowed to act, become additional and powerful sources of mischief. The natural stimuli of the eye, the ear, the stomach and the bladder, are grateful during the normal state of these organs; but when inflammation occurs, the smallest pencil of light becomes intensely painful to the eye; noises to the ear; food and drinks to the stomach, and urine to the bladder. The cells which compose these inflamed tissues, unable to retain their integrity, by having their sources of nourishment cut off, by reason of the congestion, and also deprived of their nerve stimulus, degenerate into pus. The body deprived of the vital principle speedily decays—that is, *becomes oxydized.* Living, healthy tissues, either by virtue of this vital principle, or some equally powerful cause, do not yield themselves thus readily to the action of oxygen, but once lower their resistant power, and destruction is the result. The universal wholesomeness of fresh air is probably a mistaken notion. It is bad for inflamed skins; it is bad for abscesses; it is bad for wounds: *is it good for inflamed lungs?*

With softening tubercles in the lung substance, and the neighboring parts inflamed and irritable, the more oxygen is

inspired, the more certain, rapid and widespread the destruction must be. But not only here, but, by the very nature of the disease, the body is being too rapidly consumed; it is *consumption*, not figuratively but literally. The waste of the tissues exceeds the repair; disintegration of structure predominates over the process of reconstruction. There is inanition or starvation, though a full supply of food is taken into the stomach, because this food is either misapplied, or assimilation and absorption being faulty, the food never becomes blood, and hence never reaches the tissues.

In Dr. Gardner's treatise on gout, are some very interesting and important experiments concerning the action of oxygen on the blood, and they are so *apropos*, I cannot avoid mentioning them in this connection. In these experiments, performed on rabbits, it was found that after pure oxygen had been respired for half an hour, the quantity of albumen and blood corpuscles was materially diminished, while the quantity of fibrin was largely increased. But the two former elements are the ones which make the blood, the nutrient fluid of the body. The corpuscles are indeed the most important of all its ingredients, and next in importance comes the albumen. And these are both diminished as the quantity of inspired oxygen is increased. As regards the fibrin, Dr. Smith, the Am. Ed. of Carpenter's Physiology, says, in commenting on the views held by Prof. C. relative to it:

"This product, (fibrin,) it is maintained by many, in opposition to the views here stated, is to be traced to the process of disintegration and waste that is going on constantly in the system, and that opinion gains support from the fact that in diseases characterized by rapidity of capillary circulation and emaciation, such as phthisis, anemia and acute inflammation, *this material is strikingly increased.*" The diminution of the blood corpuscles in these same diseased conditions, is a well authorized fact. If, therefore, an augmented inspiration of oxygen tends, as these experiments go to show, to increase the product of waste—which in consumption are already too great —while at the same time it diminishes those elements which by

their presence constitute the life and usefulness of the blood, there is surely something wrong in that practice which consists in *an increased amount of oxygen*, be it given in the form of the iodides, the chlorides, inhaling tubes, or the "compressed air bath." Such a practice can only be supported on Hahnemannic grounds—"Similia similibus curantur."

I believe, therefore, that too much importance has been ascribed to the vitalizing power of inspired oxygen, and not enough to the elimination of carbonic acid and the volatile organic matter which result from every functional manifestation. It is true that an animal will not live for any considerable time in an atmosphere of pure hydrogen—though the elimination of of carbonic acid is in no manner impeded. But, on the other hand, an animal made to breathe an atmosphere of carbonic acid alone will die almost immediately, as the experiment of Spallanzani and W. Edwards prove. The experiments of Claude Bernard are also in point. He mingled fifty per cent. of oxygen with fifty per cent. of carbonic acid, and found that warm-blooded animals were suffocated in it in spite of there being more than double the quantity of oxygen present in the ordinary atmosphere. The inference of Bernard is doubtless the true one: that the inability of the atmosphere to sustain life, is due to the obstacle it offers to the exhalation of carbonic acid. The blood cannot free itself of the carbonic acid it contains, and cannot therefore become *arterialized*, notwithstanding the presence of so much oxygen, because the conditions necessary to exchange are absent. Other experiments of Bernard's are still more to the point. He tied a dog's head in a bag, which would in a certain time produce suffocation, and he found that this period was by no means retarded when he *injected oxygen into the arteries*. On the other hand, he injected large quantities of carbonic acid into the veins and arteries, and under the skin of rabbits, and so long as the lungs were free to act, no noxious effect ensued. The more of this element he injected into the system, the greater the quantity exhaled by the lungs. And again, he found that a bird about to expire in vitiated air, could be readily brought to life again by the intro-

duction of potash, which would absorb the carbonic acid—showing that it was from the presence of this carbonic acid that respiration was impeded.

There are a few final considerations which go to sustain the views which I have presented, and I desire to briefly state them before passing to the treatment.

(1st.) In no other satisfactory way can we explain the beneficial results which so commonly follow the use of alcohol and oils, when administered in this disease. The former, at least, does not enter into the system as one of its component elements, nor does it remain in the organism in any known form. It does not supply any deficiency then directly, and yet, ample evidence could be adduced to prove its value as a remedy. The only way in which we can account for the fact is by supposing that it acts as a conservator of tissue. In keeping up the heat of the body, it supplies the place of food and tissue.

(2d.) In hot climates where the air is highly rarified, a less volume of oxygen is taken into the lungs at each inspiration, than in colder climates, to enter into combination with the carbon of the system. On this account we observe a greater prevalency of the liver and bilious affections in torrid than in temperate latitudes. Unless care be taken to avoid liquors and articles of food which produce a large amount of carbon, a greater quantity of other elements will be assimilated than the inspired oxygen can decompose. Thus an excess of carbon and hydrogen is retained, relaxing and enfeebling the nervous and muscular tissues, so that from slight exciting causes, diseases of a bilious and congestive nature are originated. But we find here a marked exemption from tuberculous disease.

(3d.) The fact is becoming better and better established each year that consumptives do better in these hot climates than in colder ones, and the practice of sending patients, affected with tubercles, to northern latitudes, is being rapidly abandoned, as experience proves that such a practice is detrimental rather than beneficial.

(4th.) Corpulent people are proverbial, as a class, for narrow, contracted chests, while, as a class, they are remarkably exempt from consumption. Unless there be some additional fault in

the constitution, narrow-chested persons are not proven to be more disposed to consumption than are those with larger lung capacity.

In accordance with the foregoing views, our curative efforts should be directed to the accomplishment of these three objects: First, to limit the quantity of oxygen inspired; second, to supply, in a concentrated form, carbonaceous foods, which this oxygen will act upon instead of upon the carbon of the system; and third, stimulate the renewal of the tissues, and increase their resistant power toward the oxygen which is destroying them.

As regards the accomplishment of the first object, Thomas King Chambers, who, from his position and experience, is competent authority, says: "I find that few things contribute to the ease and recovery of my patients so much as limiting the supply of oxygen in the atmosphere *by saturating it with watery vapor*. I refer here not only to pneumonia, but to all affections of the breathing apparatus.* This can be accomplished by the ordinary process of evaporation, or still better, by the use of the *atomizer*, which may be allowed to throw a small jet of steam into the room the greater part of the time. The second object can be best accomplished by the use of cod liver oil and whisky, or some substitute for them.

I wish to speak more particularly of the third part of the treatment, whose object can be secured by the judicious use of exercise or bodily movement, since they tend directly to stimulate and strengthen both the nervous and muscular tissues. They also help on digestion, so that more food is assimilated and brought into the circulation for the oxygen to act upon.

We must correct the balance between waste and renewal, and nothing is so capable of doing this as muscular contractions, cautiously employed. Exercise has long been recommended and employed in this disease, and has often proved highly salutary, though the exercise has been of the simplest and most unsystematic kind. But in general, simply to "take exercise," may neither improve health nor strength, it may injure both. Weakness no less than strength may follow the

* "Renewal of Life," page 91.

employment of any function. The healthiest organism may be, and often is, weakened and diseased by exercise too violent or too prolonged, and surely, much more care should be taken to regulate the kind and amount, when exercise is prescribed for medicinal ends, and to be taken by a body already enfeebled by disease.

The good and eminent Dr. Rush, the father of American medicine, appreciating the truth of this, wrote, "That physician does not err more who advises a patient to take physic without specifying its kind and quantity, than the physician who advises a patient in consumption to use exercise, without specifying its species and degrees. From the neglect of this direction we often find consumptive patients injured instead of being relieved by exercise, which, if used with judgment, might have been attended with the happiest results."

Probably in no other disease is the matter of the *appropriate* exercise of more importance.

The utmost care should be taken to prevent congesting the lungs by such exercises as cause their effects to center in the region of the chest. All violent active movements of the arms, such as swinging dumb bells or heavy clubs, or indeed any violent effort which will hurry the breathing, should be scrupulously avoided. The lighter calisthenic exercises, like those employed in Dio Lewis' Light Gymnastics, are much preferable. But even these may be productive of harm, especially if the disease be considerably advanced, and the powers consequently weak. In these cases, only *passive* movements, or those partially active, are admissible. These will require an assistant, but may be given by any one in attendance upon the invalid, under the doctor's direction. The movements themselves consist in rubrings, or ordinary frictions; rollings of the muscles, effected by placing a limb between the hands and rubbing rapidly *across* the axis of the limb; spatting the muscles with the palm of the hand, or still better, *hacking* rapidly over the muscles with the edge of the hand. While the patient lies passive the operator may flex the limbs in various ways, causing alternate contractions and expansions of the muscular fibres, the patient meantime, if able, offering slight resistance to these manipulations.

The greatest care must be exercised at first, and indeed all the time, to adjust these efforts to the patient's strength. *No effort should be carried to fatigue.* The nervous forces in particular must be shielded and strengthened, not exhausted. Hence the value of the passive movements. These irritate the muscles and regulate the circulation without irritating the nerves or wasting their energies.

I have seen the quick, fluttering pulse of hectic, calm down and become regular, and many distressing symptoms disappear temporarily, under an hour's judicious handling in this way, and permanent benefit follow, by persistence in the treatment. After continuing these manipulations for a few minutes, the patient should rest perfectly quiet for a time, after which they may be again resumed.

I do not deem it necessary to be more explicit. An endless number of movements may be devised by the physician, varied as the cases vary.

The main idea being, always to get the greater number of muscular contractions possible, commensurate with the patient's strength, always stopping short of fatigue.

Clinical Lectures on Diseases of the Eye. By E. L. HOLMES, M. D., Lecturer on Diseases of the Eye and Ear in Rush Medical College.

PARALYSIS OF THE MUSCLES OF THE EYE.

GENTLEMEN,—Paralysis of the recti and oblique muscles of the eye, is a quite rare disease. Reference to tabulated lists of ophthalmic diseases will show you, I think, that only about one in four hundred patients, with abnormal conditions of the eye, is afflicted with paralysis of these nerves.

The disease, however, is of considerable importance, as not unfrequently confounded by the careless or inexperienced with strabismus; it is interesting also, as aiding us in the study of the action of the motor muscles of the eye.

Paralysis of these muscles is characterized by an inability to rotate the globe in the direction in which the muscle usually

acts. In other words, the antagonistic muscle, by its tonic contraction, holds the globe (visual axis) turned in the direction opposite to the affected muscle. In paralysis of the external rectus, for instance, the pupil is turned towards the inner angle. In paralysis of the internal rectus, the globe is rotated outward. In paralysis of the inferior rectus the pupil is turned upwards, and *vice versa* in paralysis of the superior rectus. Paralysis may be total or partial. In the latter case it is termed paresis.

Paralysis of these muscles must be distinguished from a peculiar insufficiency of the muscles, especially of the internal recti, in which all the motions of the globes are normal in extent, and in which the visual axes are readily fixed upon any object. The insufficiency or weakness is principally experienced when the patient attempts to fix the eyes long at a time upon quite near objects. In this case the internal recti become fatigued, and then lose their power of holding the visual axis sufficiently convergent. Consequently one of them, the weaker, relaxes, and the visual axis turns from the object, causing a confusion of vision with more or less pain. The symptoms usually subside on looking at distant objects.

In case of paralysis of a muscle, the luscitas or fixed strabismus, as it has been sometimes called, is constant. The two principal symptoms of paralysis in general, are the relative position of the eyes, as seen by simple inspection, and the appearance of double images in the ordinary efforts of the patient to fix the eyes upon any object.

There are also two symptoms of secondary importance, which it is well to bear in mind—the manner in which the patient carries his head, and the manner in which he attempts to grasp an object, while the well eye is covered. It is scarcely necessary to dwell upon the manner of determining the position of the pupils (visual axis) in paralysis. Directing the patient to hold his head perfectly still, you place any small object in front of the patient, and then move it in any direction, to either side above or below, watching the movement of the affected eye. Any failure to follow the object with one of the eyes, can thus usually be readily detected. A critical investigation of the double images often requires much care on the part of the

physician, and considerable intelligence on the part of the patient.

It will be found a convenient method in such examinations, to place the patient in front of a large tablet, held perpendicularly before the face in a darkened room. On placing a small lighted candle before the face of the patient, in a suitable position, two images of the light will be projected upon the tablet. The relative position of these images can be easily marked upon the tablet. From such examinations you will perceive that the image of the affected eye is projected in the direction of the paralyzed muscle.

If the superior rectus of one eye is paralyzed, the eye will be turned downward, but its image will be thrown above that of the well eye. *Vice versa*, if the inferior rectus of one eye is affected.

If the external rectus of one eye is paralyzed, the globe will be rotated inward, while its image will be projected outward. If either eye be now covered with the hand, it will be observed that the image upon the same side as the covered eye will disappear. On the other hand, in cases of paralysis of the internal rectus of one eye, in which the globe is rotated outward, the image will be projected inward. Remember, therefore, when either eye in paralysis is turned inward, there will be double images—in such a way, however, that the right image belongs to the right eye, and the left one to the left eye. But when either eye is turned outward, the image on the left side belongs to the right eye, and the image on the right side to the left eye. Hence, such images are called "crossed."

A careful review of what I said in a former lecture, regarding the action of the muscles, and of "corresponding portions of the two retinæ," will enable you to understand these points. The subject, however, requires considerable study to make it familiar.

The presence of double images is a symptom exceedingly annoying. Patients almost involuntarily endeavor to overcome this symptom, either by closing one eye, or by a peculiar position of the head. The muscles of the neck learn to act consensually, as it were, with the movements of the eye. The head is

usually turned in the direction of the affected muscle. If, for instance, the right external rectus is paralyzed, the globe, of course, is turned to the left. The patient, in order to avoid the double image, turns the head to the right, as far as is required for the left eye, in looking at any particular object, to be turned toward the left. As soon as the left eye is turned as far to the left as the right eye is turned in consequence of the paralysis, the images coalesce.

On covering the well eye, objects seen by the affected eye, appear to be situated too far to one side. For instance, in paralysis of the external rectus of the left eye, the macula lutea, or point of most distinct vision, is turned to the left; hence, the image of an object is formed on the point of the retina to the right of the macula lutea, which point corresponds to objects situated farther to the left. In this case, therefore, the patient, in attempting to grasp the object, carries, almost invariably, his hand too far to the left of the object, and of course misses it.

This inability to measure distances accurately, together with the presence of double images, especially in attempting to walk, produces more or less giddiness and unsteadiness.

The distance between the two images, depends in a measure upon the degree of paralysis.

The attack is often very sudden, and sometimes comes on very slowly. It may inflame but one muscle, or all of them simultaneously.

The exact diagnosis, is sometimes difficult. While simple inspection is often sufficient, careful examination of the position of the double images, on looking in different directions, is sometimes absolutely necessary for determining an accurate diagnosis.

Our time will not admit of entering upon a full description of the mode of conducting such investigations for each muscle. I must refer you to what was recently said in reference to the manner in which the inferior and superior recti muscles influence the meridian of the retina, (perpendicular diameter of the cornea.) You will thus perceive, when the visual axis is directed towards the nasal side of the orbit from paralysis of the ex-

ternal rectus, (right eye, for instance,) that, in attempting to look outward and upward, the superior rectus must tend to rotate the eye in such a way that the meridian is inclined inward instead of being inclined outward, as it should be to remain parallel with the meridian of the other eye. As, you remember, the internal rectus of the other eye inclines the meridian inward, in looking upward and outward, the affected eye should be turned outward and upward, and its meridian inclined outward, through the action of the inferior oblique.

As the paralysis of the external rectus causes the eye to turn toward the inner angle, the inferior oblique, with the eye in this position, loses, for reason explained in a former lecture, its influence on the inclination of the meridian. The meridian of affected eye remains perpendicular. Hence, in paralysis of the external rectus, on looking upward and outward at objects, their images appear not only double, but in such a way that the upper portions of the misplaced images are inclined inward; on the other hand, for similar reasons, on looking downward and outward, their upper portions are inclined outward.

In paralysis of the internal rectus, the action of the oblique and superior and inferior recti, also have an influence in the inclination of one of the double images. The inclination is an important point in the diagnosis, in paralysis of the superior oblique.

For details in the study of this subject, I must refer you, among several important monographs, to an article by Graefe, in the first volume of the archive for ophthalmology, also to articles by Wells, in the London Ophthalmic Hospital Reports.

When all the branches of the oculomotor nerve are implicated, there is paralysis of the superior, inferior and internal recti, the inferior oblique, and of the levator of the upper lid. The globe often protrudes more or less, the pupil is dilated and the power of accommodation destroyed. In different cases, however, these last symptoms may vary in degree, or even be absent when all the external muscles are affected.

The principal causes of paralysis of the muscle of the eye, are syphilis, rheumatism, diphtheria, tumors implicating the

nerves, inflammation of the base of the brain, penetrating wounds of the orbit, and exposure to sudden changes of temperature.

If the paralysis is not speedily removed, there is danger of atrophy of the affected muscle, and a permanent shortening of the antagonist, which necessarily, if fully established, produce incurable restriction in the motions of the eye.

The prognosis is grave, where the affection is caused by tumors, injuries, products of inflammation at the base of the brain, and in all neglected cases. In diphtheria, it is usually good, also in syphilis if treated early.

The treatment depends in a measure upon the cause. In syphilis and rheumatism, the treatment should be directed principally to these diseases. In diphtheria, the use of tonics is especially indicated.

Strychnia, iodide of potash and electricity, have been used with benefit. In contraction of the antagonistic muscle, tenotomy is sometimes performed with good results.

Nearly all the late text books on physiology and anatomy, are at fault in their discussions on this subject. My object in this lecture has been chiefly to serve as a guide in giving you the proper direction in your further investigation of these points in the physiology and pathology of the eye.

A Case of Cerebro-Spinal Anæmia. By R. C. HAMILL, M.D., Consulting Physician to the County Hospital, Chicago.

I was called to see Miss L., a girl in her thirteenth year, Oct. 14th, 1865, and found her dressed, lying on the bed, apparently in good health. Her mother informed me that on the day previous, on returning from school, she complained of unusual weariness and weakness of the back, but no especial attention was given to it. On the following morning, when she attempted to get out of bed, she found herself unable to stand. In this condition I found her during the afternoon of that day.

Her case presented the following phenomena: Constant but

not severe pain in the head, located, according to her description, in the line of the great longitudinal fissure separating the hemispheres of the cerebrum—the pupils of both eyes were dilated to more than one-fourth of an inch in diameter. The posterior and central portions of the tongue were covered with a closely adherent grayish fur. Appetite bad for a week, and her bowels inactive rather than constipated. Skin and kidneys approximately normal in action. A subsequent analysis detected no albumen in the urine—a slight excess of acid was apparent. The action of the heart was marked by slight irregularity, but there was no suspicion of any organic disease—pulse 110 at the wrist, and soft. Inspiration 30 per minute, and irregular, evidently the result of a habit, contracted for some unknown reason—for under my direction she could breathe naturally, at a rate of 18 inspirations per minute, and with entire ease to herself. There was some tenderness along the whole course of the spine, with marked soreness in the lower cervical and upper two dorsal vertebræ, and in the lumbar region, extending as high as the last dorsal vertebræ, inclusive. There was no obliquity of the spinal column. Sensation was perfect everywhere, and she had complete use of her limbs, turning and rolling in bed without pain and with apparently as perfect ease and freedom as if in the enjoyment of full strength and vigor. It was only when she assumed the erect position that any want of control or modification of motion could be observed of the lower limbs. She was unable to take a single step unless the entire weight of the body was supported by the hands of attendants in the axilla of either side, and then the feet were rather jerked forward a few inches at a time, and in a manner such as to convey the impression that she was bending the entire energy of her will to the effort. The pelvis was thrown forward, the shoulders backward, and if not supported would invariably fall backwards. About two years prior to this time she had a severe attack of rheumatic fever, but I was unable to learn anything definite in relation to its history. She had on several occasions suffered from ascarides, but not within the last six months. I was inclined to attribute the loss of power to functional derangement, due to verminous irritation,

and in accordance with that opinion, ordered: ℞ Santonin, grs. xii., div. in chart. 4—one every four hours, to be followed by an aloetic pill. The bowels were freely moved, but no worms appeared. Infusion of quassia, ℥iv. per anum, on the next day was followed with the same negative result, and the verminous origin of the trouble was extinguished. For the purpose of stimulating the secretions, more especially that of the liver, the following pill was ordered once in twelve hours: ℞ Pil. hydrarg. grs. xij., ext. hyosciami, grs. vi., ft. pill 6. Bowels moved once a day under the influence of the pills, and on the morning of the 19th, her tongue was quite clean, and she had some appetite for breakfast, but without other change in the case. Her pulse was soft and full, 110 to the minute; no febrile excitemenent; pupils dilated; pain in the head same. As a general nerve tonic and sedative, I ordered tho following mixture: ℞ Citrate of iron and strychnine, ℥i., chloric ether, ℥ii., infus. gentian, ℥xii., one tablespoonful three times a day, after meals, which was continued until the 1st of Nov., accompanied by thorough frictions night and morning with a soft towel, but with no perceptible benefit, as far as locomotion was involved; on the contrary she was more helpless than at the commencement of the treatment. The iodide of potash was now substituted for the strychnine mixt., grs. vi., three times a day, frictions continued. Nov. 10th, complains of a sharp pain between the left mamma and along the intercostal spaces, for which tinct. actæa racemosa, gtt. xxx. three times a day, was ordered, before meals; the iodide continued two hours after meals. She remained under this treatment to the 29th; pain partially relieved, pulse varying from 100 to 110. The improvement in the main features of the case was scarcely perceptible, and I felt it my duty to call in professional aid. Dr. E. Andrews saw her with me, Nov. 30th, and after a careful examination of the case, gave as his opinion that the inability to walk was functional derangement, due to subacute inflammation of the membranes of the spinal chord at the origin of the lumbar nerves; that her diathesis was rheumatic; and that he should expect to find benefit from the use of colchicum in full doses until its cathartic effect was decided, then follow with full doses of actæa racemosa, and

reduced quantity of colchicum. Accordingly, gtt. xx of the rad. colchici, were given once in four hours. In about thirty-six hours free purging set in and the colchicum was discontinued. A Dover's powder was given at bedtime, and on the next day the following mixture was ordered: ℞ Tr. actæa racemosa, ʒjss., vin. rad. colchici, ʒij., misce—gtt. xl., three times a day. The iodide of potash continued as before; croton oil to the spine, between the scapulæ; friction continued.

Dec. 15th. No relief. Her appetite, which was pretty good before, now began to fail. A short and constant cough, dependent on irritation of the laryngeal branch of the pneumogastric nerve, was a source of great annoyance. Her pulse was rarely below 110. The pain in her side much the same. She was surely losing strength without compensation in any other direction. This treatment discontinued, and I determined to address my efforts to the general health, and thus reach the nervous system through improved nutrition. With this purpose in view, the following mixture in tablespoonful doses, three times a day, was ordered, at meal times: ℞ Hypophosphite sodæ, ϑxii., chloric ether, ʒii., infus. gentian, ʒviij., misce. The croton oil, for some reason, failed to produce effective counter-irritation, and a cantharidal plaster, 2½ by 8 inches, was applied between the shoulders, reaching as low as the fifth dorsal vertebræ; frictions over lumbar region and limbs, with salted crash as before.

Dec. 18th. The blister drew finely and was permitted to heal. The pain in the side was quite relieved by the blister. She is cheerful, and expressed herself as feeling much better. The short, hacking cough continues, but not so persistently; sometimes stopping for an hour or more; otherwise, without material change.

Jan. 1st, 1866. A decided improvement during the last ten days was manifested in every way; pulse 100; cough more under control; appetite good. Is able, by the aid of a chair, to go from her bed to the opposite side of the room. A pair of crutches were procured for her, and in less than two weeks she was able to reach all parts of the house, through their aid.

Feb. 15th. She was able to stand without assistance, and take

a few short steps. Cough continued; pulse 94; pupils dilated; says she feels perfectly well.

The subsequent treatment, which reached to the middle of May, consisted of the hypophosphite of soda, as above, and the syrup of iodide of iron, gtt. xx., three times a day, alternated once in two week. General frictions once a day at least, with a salted towel, were continued until the case was dismissed. Her recovery was slow but uninterrupted from the 1st of January until the middle of May, when she was permitted to ride on horseback, and was able, so far as I could judge, to endure as much exercise, without fatigue, as is usual for young ladies of her age.

Poisoning with Morphine. Reported by J. L. PRENTISS, M.D., of Lawrence, Kansas.

Miss L. S——, aged 25 years, swallowed five grains of morphine at 5 o'clock P. M. on the 28th of August. At 11 P. M. I was called, and, on entering the room, found her in a state of complete insensibility. Pulse beat 80 per minute, moderately full; the pupils were contracted; breathing stertorous, and at times ceased entirely for the space of a minute; the skin was cold and clammy, and narcotism was so complete, that it seemed impossible to arouse her sufficiently to administer an antidote, as the masseter muscles were rigid, and the teeth so firmly closed, that it was impossible to open the mouth.

By the application of cold to the head, and cold douche to the face and chest, besides anything but a moderate amount of shaking, we succeeded, after about half an hour, in getting her sufficiently aroused to take medicine. I immediately gave her one drachm of the tincture of belladonna, and repeated the dose every half hour for two hours, when the pupils became dilated, the breathing more natural, and the patient seemed comparatively free from the influence of the narcotic.

In this case I used nothing but the belladonna and strong coffee, and am well satisfied that the former should be classed among the first as an antidote in cases of poisoning by opium.

Observations on the "Clamp," in the treatment of Internal Hemorrhoids and Prolapsus of the Rectum— With two Cases. By A. J. BAXTER, M. D., Chicago, Ill.

The frequency of hemorrhoidal affections, the great distress which they occasion, and their liability to undermine the constitution, when of long duration, make them an important subject for surgical attention.

Heretofore the methods of treating internal hemorrhoids have been principally three, viz: Excision, nitric acid and the ligature—but from the excessive hemorrhage attending the first of these methods, the great difficulty in arresting it, and the fact that it has been attended with death in the hands of such men as Sir Astley Cooper, Dupuytren, and others of less note, have rendered it, I may say, obsolete. As the pathology of hemorrhoids became better understood, so the application of nitric acid became restricted, until now its usefulness is recognized in but one form of piles—the vascular excrescence, it being, as the name implies, a florid, granular, excessively vascular and slightly raised condition of the mucous membrane; ranging in size from a five cent piece to a quarter—most frequently of an intermediate size. This is the reason why nitric acid has met with so little favor at the hands of the profession. It has been used indiscriminately in all the varieties of piles, and being applicable to but one, resulted in a failure in the majority of cases. The advantages claimed in the ligature are simplicity of execution, safety from hemorrhage, certainty of result, and in the main, freedom from subsequent danger. If these advantages were not attended by any disagreeable consequences, they would be all that could reasonably be desired—but there are disadvantages and inconveniences attending its use of no miner importance, such as the length of time required for the separation of the ligature—ranging from five days to two weeks, according to the amount of bowel included; the pain and constitutional irritation often accompanied by difficulty in voiding urine, sometimes amounting to retention; and that its use is sometimes attended with death from pyæmia there is no doubt.

With this much in regard to the various methods of dealing with internal hemorrhoids, their advantages and disadvantages,

I will introduce the "Clamp" as improved by Henry Smith, Assistant Surgeon to King's College Hospital, London; and as I am not claiming anything original in this matter, but simply desire to call the attention of the profession to the great improvement afforded by this instrument in the treatment of internal hemorrhoids, I will give Mr. Smith's description of it, mode of application, etc.: "The instrument is much the same as regards shape as that originally recommended by Mr. Curling; but the edges of the blades, instead of being serrated, fit into one another by means of a groove and raised surface; and instead of being fixed by a catch, the handles are perforated by a light screw, so that the pressure can both be put on and taken off the tumor to be removed in such a gradual manner that any bleeding point may be readily appreciated and treated. The operation consists in seizing the tumor with the blades of the clamp or forceps, and removing it with a knife or sharp scissors; the raw surface is then wiped dry and thoroughly cauterized, either by nitric acid or the hot iron, according to circumstances; the parts are well oiled, and the affair is finished. The disease is removed at once, and the patient is not subjected to the irritation and danger of a ligature strangulating several portions of mucous membrane for a week or more. A very extensive experience of this method of treatment has convinced me so entirely in its superiority over every other plan, that I have thought it right to detail a few of the most severe cases which I have met with during the last year.

"I am the more anxious about this, as there is a feeling of prejudice against the treatment amongst those who have not witnessed it. On the other hand, I believe all those who have seen the operation as I adopt it in King's College Hospital, and in my private practice, have been much astonished and pleased with the results. My own impression is, that the ligature may be almost entirely done away with for hemorrhoids and prolapsus; although my own practice is somewhat contrary to my convictions, as I have latterly employed the ligature in a considerable proportion of cases which have occurred to me. The reason of this is, that I have been testing with great care the comparative value of the two modes of treatment, and have

been selecting cases for each; and as before stated, the conclusion is forced upon me that the advantages of the plan by the clamp are too marked to be lost sight of."

My experience with the clamp, though nothing in comparison with Mr. Smith's, fully sustains all he claims for it, as I think the following cases will bear witness:

CASE I. Mrs. R——, aged twenty-one, a highly cultivated and sensitive lady—has been married but six weeks, says she has suffered more or less from piles during the last three years, but not so intensely until within the last six months, when she first noticed that something "came down." Ever since which she has been losing a good deal of blood, and the pain attending defecation has been greatly increased. Thinks they were brought on by constipation, from which she suffers habitually. May 20th I removed one large vascular tumor by means of the clamp and hot iron. One external pile was snipped off with the scissors. On the third day her bowels were moved with a castor oil emulsion, and on the fifth day she and her husband called at my office. Complained only of some soreness when the external pile was removed.

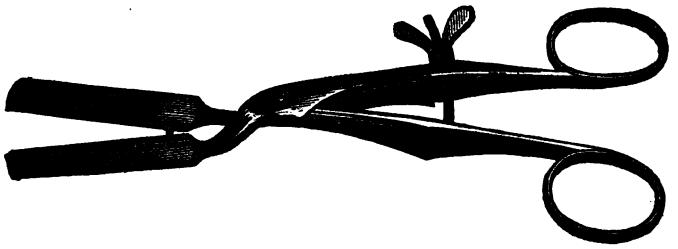
CASE II. Mrs. G——, aged thirty-five, a stout, hearty Irish washerwoman—mother of three children, sent for me, Tuesday morning, September 4th. I found her in bed, with a high fever, and complaining of great pain and burning in her "behind." On examination, found two large tumors, one of which was in a high state of inflammation, partially protruding, and tightly grasped by the sphincter. The tumors were removed in the afternoon, with the aid of the clamp and hot iron. To allay the constitutional trouble and quiet pain, directed that a tablespoonful of the following solution should be given every hour until three doses were taken, then to be given once in two hours: ℞ Liq. ammoniæ, acet. ℥vi., morph. acetat. gr. iss. Cautioned her particularly to keep quiet in bed.

5th. Found her in bed, fever nearly gone. Expressed herself as feeling perfectly well. Directed her to remain in bed until the following day, when, if everything continued favorable, she might get up. On calling the next day, to my astonishment, I

found her at the washtub. Gave her some castor oil and departed. This case fully illustrates, I think, the advantage of the clamp over the ligature. The most zealous advocate of the latter would honestly have thought of applying it here, but would have put in force measures for subduing the local and constitutional trouble, such as leeches, hot water dressings or poultices, thereby consuming more time and the enduring of more pain in palliative treatment than was required for the radical cure.

Mr. Smith, in describing the operation, says the tumor is seized with the clamp and removed with a knife or scissors. Now, as the only possible danger (if there is any) attending this operation is from hemorrhage, it becomes a matter of importance how and with what the tumor is removed. The scissors should be used in preference to the knife, for this reason: with the knife you are apt to shave off the tumor too close to the blades of the clamp, thereby leaving nothing to cauterize, and as the blades cannot be taken off and readjusted at pleasure, great difficulty may be experienced in cauterizing the cut surface sufficiently to prevent hemorrhage, as happened in my first operation, causing no little trouble and anxiety. And again, it is a matter of no small importance whether nitric acid or the hot iron is used as the cauterizing agent. Mr. Smith says, "When I first began to use this treatmeat, I employed nitric acid as the cauterizing agent in all cases; but in two instances it failed to stop the bleeding, and I was compelled to secure the part with a ligature. Consequently, I now only use the nitric acid in the slight cases; but if the diseased mass be extensive, or the parts extraordinarily vascular, I employ the actual cautery, which suffices to seal up the vessels. I am inclined to think that, of the two, the cautery is followed by more suffering than when nitric acid is used. Admitting that a little more suffering attends the use of the cautery, no judicious surgeon would, I think, jeopardize the safety of his patient to avoid a little additional suffering; and as an anodyne sufficient to allay pain should follow either application, the objection amounts to nothing, whereas the certainty of the cautery in preventing hemorrhage."

After giving the details of seventy cases in which the clamp had been used, Mr. Smith draws the following conclusions: 1st, That it is safer than the ligature, for in no one case has death occurred, nor in any one instance has anything taken place which caused the least anxiety; 2d, That it is less painful, and followed by less constitutional irritation; 3d, That it is much quicker—the patient not being confined to bed more than one-third the time necessary for the separation of the ligature; and, 4th, The result is as lasting as that by the ligature, because in each instance the disease is bodily removed—in one case speedily; in the other slowly.



The clamp can be obtained of Messrs. Bliss & Sharp, 144 Lake street, in this city.

Enlargement of Lymphatic Glands about the Bifurcation of the Trachea and Bronchial Tubes Obstructing Respiration. By C. CUSHING, M. D., Turner, Ill.

On December 28th, 1865, I was called to see an infant, four months of age, affected with a slight cough and difficulty of breathing, and what the old ladies call "snuffles." The child seemed fleshy and well nourished, and as its mother had no breast-milk, it was fed from a bottle. I left some medicine and the child improved somewhat, but in about ten days got worse again, distressing dyspnœa occurring in spasms, simulating asthma, being the most prominent symptoms.

Owing to the extreme youth of the child, and to its struggles and cries, the results of auscultation and percussion were unsatisfactory and threw no light on the case. The dyspnœa

was worse at irregular intervals, the child breathing most easily when asleep. Various modes of treatment were instituted by myself and by two other physicians, but nothing seemed of any avail except the warm bath, which gave temporary relief. I treated the case under the belief that it was a spasmodic nervous constriction of the trachea or bronchial tubes. One of the other physicians pronounced it dropsy of the heart; and the other said "wind on the stomach."

The child died about the middle of April, 1866, and I was called upon to make a post-mortem examination: it had lost some flesh since I had seen it in February, but it was not emaciated. All the internal organs were in a healthy condition except the lungs and the contiguous lymphatic glands.

There was extensive tuberculous deposit throughout both lungs, some of the tubercles having already commenced to soften. The tubercles were from the size of a millet seed to that of small peas.

The most interesting pathological conditions, however, were in the enormously enlarged lymphatic glands, situated about the bifurcation of the trachea: there were quite a number of these, some of them an inch in diameter, apparently filled with tuberculous matter.

Now it seemed evident to me that the difficulty of breathing was caused, in a great measure, by the pressure of the enlarged glands upon the trachea and bronchial tubes lessening their calibre, and that the nervous symptoms were caused by the pressure of the enlarged glands upon the pneumogastric nerves, causing spasmodic nervous constriction, more or less, of the whole lung. The trachea, at its upper part, and the larynx were in a perfectly healthy condition.

The father and mother were healthy people, but two children had died out of the family with pulmonary tuberculosis.

Mortality of First Labors.—Dr. Duncan, in the Edinburgh *Medical Journal*, declares, on the authority of statistics, that the mortality of first labors, and of puerperal fever following first labors, is about twice the mortality attending all subsequent labors collectively; and that after the ninth labor, the mortality increases with the number.

PROCEEDINGS OF MEDICAL SOCIETIES.

CHICAGO MEDICAL SOCIETY.

SYPHILITIC CARIES OF ULNA.

Dr. Amerman exhibited the lower third of the ulna, which he had removed from a young man at the County Hospital. The patient had contracted syphilis six years ago, the symptoms of which were so far relieved by his medical attendants, that he enjoyed perfect health for a long time, with no indication of the disease, except slight ulcerations of the throat. During the war he was in active service, which much impaired his health. Some months ago, an abscess formed at the lower part of the left arm, which opened spontaneously. On entering the hospital six weeks since, there was considerable enlargement of the arm, with fistulous openings and sinuses leading to the ulna. Resection of the lower third of the ulna was performed yesterday. After removal, the bone was found necrosed through its whole thickness, presenting all the usual characteristics of that affection.

SPONTANEOUS DISCHARGE OF A LARGE PORTION OF THE TIBIA.

Dr. Amerman also exhibited a piece of bone six inches in length, from the tibia of a young boy, who had suffered from typhoid fever. During convalescence, periostitis occurred, which caused the separation of a large piece of bone. Although the case was observed from time to time for a year and a half, no surgical operation would be permitted by the parents of the patient. At the end of this time the piece of bone, which had protruded from the limb, for some months, actually came away spontaneously.

SYPHILITIC SYNOVITIS.

Dr. C. G. Smith described a case of synovitis of the knee joint, as the apparent symptom of syphilis, with rupia and ulceration of the throat. There was no known direct cause of the synovitis. The use of mercurials and iodide of potash apparently relieved the affection of the joint, as also the eruption and ulceration of the throat.

Dr. Seibert had observed several cases, which induced him to believe that an abuse of mercury in syphilis tended to produce destruction of the cancellated portion of bones, rather than of the shaft.

DISEASE OF THE HEART AND KIDNEYS.

Dr. Ross exhibited the heart and kidneys removed from a patient, who had recently been at the County Hospital on three different occasions for disease of the heart.

The patient, aged 22 years, colored, had suffered two years before from acute rheumatism. After recovery, he had experienced more or less dyspnœa and palpitation.

During the first two attacks, which brought him to the hospital, he suffered from ascites and general anasarca, with labored respiration. There was a very distinct blowing sound with the systole of the heart, particularly marked at the apex.

There was also a slight murmur with the second sound of the heart, heard more plainly over the base. In both of these attacks, the symptoms were relieved by the use of diuretics and an occasional hydrogogue cathartic.

Four days previous to his death, he again returned to the hospital with much aggravated symptoms. At the autopsy three gallons of serous fluid were removed from the abdomen.

The lungs were normal. The heart here presented weighed ℥xxi. There was marked thickening of the mitral valves, one of which was drawn toward the walls of the heart, by an abnormal attachment, producing an insufficiency. The semi-lunar valves of the aorta were quite normal, with the exception of a minute opening through the base of one of them.

The kidneys were enlarged and congested. On the surface of one of them, a peculiar deep, irregular cicatrix, about 1½ inches long and an inch wide.

CIRRHOSIS WITH TUBERCULOUS PERITONITIS.

Dr. Ross also exhibited the liver and a part of the mesentery of a patient who had been under his care at the hospital. The symptoms during the illness were tenderness over the region of the liver, ascites, and for a time anasarca of the lower limbs. During the close of the illness there was paralysis of the legs.

At the autopsy, the liver was found in a condition of cirrhosis, small, and weighing only 2½ lbs., it being easily broken down.

The upper portion of the lungs were studded with miliary tubercles, which had produced a small cavity at the apex of the lung. During the sickness there had been no cough or difficulty of breathing.

The whole peritoneum was found roughened by the presence of innumerable whitish elevations, containing minute deposits of tuberculous matter. The appearance, as presented by the portion of mesentery exhibited to the Society, was very remarkable.

SINGULAR CASE OF PYELITIS, RESULTING FROM PERITONITIS.

Dr. Ross exhibited two most interesting specimens of pyelitis, the result of the products of inflammation of the peritoneum. At the autopsy, there was found within the abdomen a considerable quantity of dark fluid, containing flakes of fibrin and pus. The peritoneum of the walls of the abdomen, as well as that covering the abdominal organs, was covered with a thick mass of organized lymph, in the meshes of which were deposits of pus.

This organized deposit bound the bowels, gall bladder, liver and other organs, as it were, into one solid mass.

One of the most interesting features of the case was the peculiar condition of the kidneys. Both ureters were so compressed by bands of lymph, as almost to render them impervious. The result was a very extensive accumulation of urine in the pelvis and upper portion of the ureter of each kidney, which had so enormously dilated these portions of the organs, as to present the appearance of a very large cystic tumor. This was readily seen in one of the specimens, since a ligature had been placed around the ureter. The other kidney had been divided to show the effects of the disease upon its structure. The pelvic portions of the kidneys, presented marked evidence of inflammation; the other portions were normal.

There was extensive tuberculous deposits in the mesenteric glands.

The patient had been laboring under chronic tuberculous peritonitis for five months.

It was scarcely conceivable that the patient could have lived so long with such a serious disease.

SINGULAR DEATH.

Dr. Bogue exhibited the heart of a young man, who had died suddenly, under peculiar circumstances. A police officer had just arrested him on a charge of theft. The young man, calling upon Almighty God to strike him dead if he was not innocent, denied his guilt, *and died upon the spot.* This strange incident was the subject of discourse in several pulpits, and was specially noticed in the public journals.

An examination revealed a hypertrophy of the left ventricle, with thickening of the aortic valves, and contraction of the space between them. The ascending aorta was considerably dilated. The other valves were in a normal condition.

CYSTIC TUMOR OF THE OVARY.

Dr. Bogue also exhibited a uterus and appendages removed from a patient, who had died of cholera. The vagina presented traces of extensive ulceration, with dark patches, resembling gangrene. Dark fœtid fluid was found in the vagina, the cavity of the uterus, and even in the fallopian tubes.

The fallopian tubes were surrounded by thick extensive bands, evidently the products of former inflammation, which bound them to the uterus. The whole of the left, and nearly all the right ovary, were normal in size and general appearance. Attached to the right ovary and involving but a small portion of its tissue, was a multiple cystic tumor, a couple of inches in diameter. The previous history of the patient was unknown.

Dr. Bogue also exhibited a uterus with its appendages, which he removed from a woman, æt. 35, who had borne children, and who died from some obscure causes with exposure to cold.

The condition of the ovaries was of particular interest, since the surface of both of them presented a large number of small cystic tumors. Attached to the right broad ligament, was a very remarkable pedunculated tumor, spherical in form, and

about a sixth of an inch in diameter. The peduncle was an inch long and not larger than a coarse horse hair.

There were also several corpora lutea, well marked, and a clot of blood in a cavity very recently occupied by an ovum.

SANITARY REPORTS.

Dr. Davis read an interesting report on the sanitary condition of the city, giving also his personal experience in the treatment of cholera.

From the 1st of August to the 24th of October, he had been called to 205 cases, with symptoms of cholera. Of twenty-six patients, found in collapse, only two recovered.

One of these, a boy, passed through a convalescence of nearly a fortnight. During the recovery there was extensive sloughing of the lower half of both cornea, which, however, healed without visible cicatrix.

Of 77 cases seen in the stage of active vomiting and purging, 18 died and 59 recovered.

Of 102 cases with true choleraic (rice water) diarrhœa without vomiting, all recovered but one.

MORGAN COUNTY MEDICAL SOCIETY.

The Society met at the Court House, in Jacksonville, on Thursday, Nov. 8, 1866, at 11 o'clock A. M., Dr. R. E. McVey, the President, in the chair.

Dr. Warriner presented a specimen of castor oil, which had been deprived of the impurities of the commercial oil, but which had lost none of the valuable properties of this excellent remedy. He remarked that the commercial castor oil was often found adulterated with lard oil. He had succeeded in condensing, by chemicals, the lard oil, separating it from the castor oil.

Though his process was known only to himself, he offered to impart it to the Society if they deemed it necessary. The expressed opinion of the Society seemed to be that it was no breach of professional etiquette for him to keep his secret, and several members seemed to feel inclined to test the article.

Dr. Prince, having been called recently to Adams county as a witness in a suit for malpractice, described the injuries and made some general remarks suggested by the trial. The case was a rare dislocation—the forward dislocation of the tibia, slipping over the swell of the astragalus one inch forward of its natural position. The fibula was fractured, but the lower fragment clung to its natural attachments, and was not displaced. Several of the most eminent practitioners of the State, and of the West, were summoned to appear in the case—among others, Dr. Andrews, of Chicago. Not one had ever been called upon to treat, or had known before of, a dislocation of the kind. But little even can be found concerning it in any of the text books on surgery.

Dr. Prince remarked that a mere knowledge of anatomy did not at once interpret the case. It was a question whether the general practitioner should be better informed than the text books, or whether he should decline rare and obscure cases.

Dr. Edgar remarked that, as all physicians were liable to be called upon for surgery, they must take special pains in educating themselves for it; they would be liable for prosecution. More prosecutions arise from fractures and dislocations than from any other source in the practice of medicine. Educate yourselves specially to attend to fractures and dislocations. Never attend a case of fracture or dislocation unless you have an intelligent witness with you. He thought medical schools paid too little attention to the education of their students in these important particulars.

Dr. Prince thought that students should be taught to state "that in dislocations a cure cannot be guaranteed." He quoted Dr. Andrews, of Chicago, "who thought that medical men should not be held by the law responsible for bad practice, as they were not allowed by the law of the State to familiarize themselves with anatomy in the proper way."

Dr. Askew thought that prosecutions more often arose from the disagreement of doctors than from any other source. If the mantle of charity should be thrown over the little difficulties of practice, there would be much less trouble in the courts about doctors. Instead of trying to rise on their own merits, phy-

aicians too often attempt to build themselves a reputation on the failures or demerits of their neighbors. The State should be more rigid in its requirements of qualification, and should afford ample opportunity for the study of anatomy.

At 12½ o'clock adjourned to 2 o'clock P. M.

The first business in the afternoon was the reading of two quarterly reports of the Treasurer of the Society, which were accepted.

Dr. Prince not being prepared to give his promised essay, Dr. R. E. McVey, of Waverly, read an essay on "Phthisis and its relations with scrofula."

Dr. Prince asked the question, whether the science of medicine had progressed to that point that children, whose parents for generations had died of consumption, could be carried safely through to old age.

Dr. McVey thought he had, by the early use of cod liver oil, cured several cases of incipient phthisis.

Dr. Edgar thought that diseases of the liver were often mistaken for tuberculosis, and that many cases were possibly of this kind.

Dr. Henry Jones remarked that he had generally failed in his efforts to arrest the progress of this terrible disease, and considered it a very undesirable inheritance.

Dr. McVey was requested by the Society to furnish his interesting paper to some medical journal for publication.

The committee on "Fees" desired longer time in the preparation of their report, and Dr. Prince was added to it.

Society adjourned to meet at 11 o'clock A. M., on the second Thursday in December. C. T. WILBUR, M.D., *Secretary.*

Hog Cholera in Ohio.—It is a well known fact that the hog cholera is prevailing to a considerable extent throughout the country adjacent to the city. In view of this fact, and also that the price of pork is suffering a considerable decline from anticipated prices, we presume the temptation to avoid loss is too great for some men to withstand. We are informed by authority of undoubted reliability, that it is the practice of many pork owners to kill the hogs when first attacked by the disease, and send them for sale in our daily market.—*Cin. Gaz.*

SELECTED ARTICLES.

Vivisection.—The practice of vivisection, of conducting physiological experiments on living animals, of laying bare the organs within the body and demonstrating to the eye the vital processes and changes which otherwise must be left very much to conjecture and theory, is one which, considered purely in itself, naturally excites the strongest repugnance in every mind which lays the slightest claims to humanity. The sight of the suffering thus inflicted on the lower animals cannot but cause a shudder, and it requires a conscientious purpose on the part of the operator and an intelligent conviction on the part of the spectator that an investigation is being made the object of which is the physical welfare of a higher race, to justify it or to make it even tolerable. Doubtless there have been in times past, too much reckless experimentation of this kind, too frequent repetition of the same experiment, too great readiness for mere purposes of display to exhibit what has already been sufficiently demonstrated, and too little consideration for the sufferings thus unnecessarily produced. As we have said, it requires a full appreciation of the importance of the object sought for to make such investigations tolerable. It is not, therefore, a difficult thing to so describe them, particularly to persons not professionally interested, as to make them to their minds the very consummation of everything barbarous and cruel. This view may, nevertheless, be as unwise and unjust as the criminations of those who stigmatize the operations of the noble science of surgery as nothing better than butchery.

Influenced by such feelings, it is not surprising that movements should have been made at different times on the part of benevolent persons to check an undue tendency to the repetition of such experiments, or even to prevent them altogether by legal enactment. In this country, until quite recently, very little of this method of pursuing physiological study has been done. Professor Dalton, of the College of Physicians and Surgeons in New York, has probably made more researches in this way than any other American physiologist. The value of the results which he has obtained has been universally acknowledged by the medical profession; and as it is every day becoming more and more evident that the true practice of medicine must be based on the most accurate physiological knowledge, the value of the information gained in this way is becoming more and more demonstrated. Prof. Dalton's vivisections, however, have attracted the attention of the New York Society for the Prevention of Cruelty to Animals, and its President,

Mr. Henry Bergh, has felt it his duty to address a letter of inquiry on the subject to Dr. Delafield, President of the College of Physicians and Surgeons, suggesting that if vivisections could not be altogether dispensed with, they might at least be deprived of their suffering by the use of anæsthetics. Dr. Delafield referred this letter to Dr. Dalton, who replied that he was in the habit of using anæsthetics in all instances which it was possible without defeating the object of the experiment. This statement was not specific enough to satisfy Mr. Bergh, who wrote another letter, asking information concerning the exceptional cases; which Dr. Dalton explained by stating that they were cases where the object was "to ascertain the presence or absence of sensibility in particular parts."

It seems that these statements were still unsatisfactory, and Mr. Bergh accordingly addressed a long letter to Dr. Delafield, setting forth in the strongest terms his abhorrence of all such practices, giving a detailed description of some of Magendie's experiments, presenting the opinions of prominent members of the medical profession in Europe against them, and concluding with a protest "in the name of Heaven, public morality and of this Society against these fearful cruelties, inflicted on dumb, unresisting creatures, confided to the merciful protection of mankind, without the employment of anæsthetics." The letter is published in full in the N. Y. *Evening Post* of the 7th inst.

Making all due allowance for the humane feeling which has actuated Mr. Bergh, we feel that in this matter he has gone too far. It is impossible for an unprofessional mind fully to appreciate the considerations which justify to a physiologist what considered by itself merely is but a painful spectacle of suffering. We feel that he should have trusted to the humanity of Dr. Dalton to pursue his researches in the true spirit of scientific inquiry, the sole object of which is the ultimate diminution of human suffering. Least of all was he justified, in our opinion, in printing his letter in the daily press, to excite the universal horror and indignation of sensitive minds. As well might he have opened the doors of a dissecting room to the public for the purpose of producing a prejudice against the indispensable study of practical anatomy. Dr. Dalton replied to Mr. Bergh's letter as follows, and we leave his justification in his own hands; we find it in the New York *Evening Post* of the 8th inst.

COLLEGE OF PHYSICIANS AND SURGEONS,
New York, November 8, 1866.

Edward Delafield, M.D., President of the College of Physicians and Surgeons:

DEAR SIR,—I have received your letter of this date, enclosing a third communication from Mr. Henry Bergh, President of the Society for the Prevention of Cruelty to Animals, dated November 1, in which he enters at length into

the question of the propriety of vivisections, and in which he protests, "in the name of Heaven, public morality, and of this Society, against these fearful cruelties, inflicted on dumb unresisting creatures, confided to the merciful protection of mankind, without the employment of anæsthetics." His letter, I see, is also published in the New York *Evening Post* of yesterday.

Without replying to the extravagant epithets contained in Mr. Bergh's letter, which are of no consequence in themselves, and which will have no weight with those who desire to be correctly informed as to the facts in the case, I desire to mention to you a few considerations which show that the practice of experimenting upon animals for physiological and medical purposes, which is held up to so much animadversion, is an eminently proper one; and so far from deserving reprobation, is entitled to respect as a valuable and legitimate means of benefiting mankind.

First of all, its sole and ultimate object is the relief of human suffering and the cure of human diseases. It is the best and most valuable means by which our knowledge of physiology is increased; and upon physiology the cultivation and improvement of the whole medical art depend. All intimations that it has any other motive than this—such as display wantonness, or the indulgence of a reckless cruelty, are false, and do not represent its true character. The knowledge which is obtained by it enables us to understand the natural functions, without which the study of medicine in all its branches would be retarded, and indirectly but certainly the success of medical practice diminished. In point of fact, nothwithstanding all unfounded assertions to the contrary, the greatest discoveries in physiology have, in past times, being directly due to its employment; and while we owe to it a large proportion of the useful knowledge which we now possess, it would be the greatest misfortune for medicine and the welfare of mankind, if it were abandoned or neglected in the future.

Secondly, it is not a cruel practice, but may be and is, in the great majority of instances, conducted in a perfectly humane and unobjectionable manner. It can never be the objecte of th physiologist to inflict unnecessary suffering; but on the contrary, it is desirable both for the sake of humanity and for the attainment of his object to avoid doing so. This is greatly facilitated by the use of anæsthetics. Since the anæsthetic properties of ether and chloroform have been known to us, their employment has been fully as useful to the physiologist as to the surgeon, and they enable us to do the requisite preliminary operations without the animal experiencing any sense of suffering, and even without his conciousness.

As you are aware, it has been my constant practice to employ ether for this purpose, in the College of Physicians and Surgeons, whenever the operation to be performed was calculated to inflict pain upon the animal. This can always be done, except in a very small class of cases, where the aim of the experiment being to ascertain the existence of sensibility in a particular part, the unconsciousness produced by ether would defeat the object of the operation.

This is especially true in certain experiments of Magendie, performed in 1822, on the roots of the spinal nerves, to which I referred in a former letter, and by which the seat of sensibility in these parts was ascertained. But these experiments are so rare that I have not only never had occasion to do them myself, but do not recollect ever to have seen them performed. Yet I know that they have been done in former times, and have been productive of the most valuable and lasting results; and when requisite for other objects similar experiments might again become necessary and proper, and even here the amount of suffering inflicted is very much less than it is often represented to be. It can only be necessary to obtain an indication of sensibility, and the object of the experiment is accomplished. The practice of performing surgical operations on living animals by students or practitioners as a means of acquiring dexterity, so far as I am aware, is unknown in this country.

I allude to these considerations because I think they are important to the cause of medical education, in which we, as well as the whole community, are interested. In the College of Physicians and Surgeons over which you preside, it has always

been believed that the fullest instruction in physiology, as well as in the other elementary branches, is essential to the due preparation of intelligent and successful physicians. The more complete and efficient this instruction is made, the more competent will be the practitioners who every year are sent out to join the ranks of the medical profession. This instruction is made as complete as possible by ocular demonstrations of many important facts, but this is always done, as I believe, in a reasonable and proper way. It is not the case that "revolting barbarities are repeated at lectures for the mere gratification of juvenile curiosity." It is unnecessary to say to those who are familiar with these lectures that no such barbarities are to be seen there; but it may be desirable for the information of those who are unacquainted with the subject, and might otherwise acquire an unfounded prejudice against it. I cannot, therefore, pass over without reply the communication of Mr. Bergh, which is calculated to place in so false a light one of our most valuable means of improvement in medicine.

Yours, very respectfully, J. C. DALTON, M.D., *Prof. of Physiology.*

—*Boston Medical and Surgical Journal*, Nov. 29th, 1866.

Successful Removal of a Large Bronchocele. By WM. WARREN GREENE, M.D., Professor of Surgery in Berkshire Medical College and in the Medical School of Maine.

I have been repeatedly asked by patients, as has every surgeon of much experience, to excise bronchoceles, when small, from apprehension of increased growth, and when large, to relieve deformity or discomfort from weight and pressure, but have never before seen a case in which I should have felt a shadow of justification in using the knife; still I knew such cases did occur, and have often, with myself, discussed the surgical *possibilities* under such circumstances. Upon a careful examination of the books, I inferred that in most instances the knife had been used freely around the tumor, and that in several instances the attempt had been made to remove a *part* only of the morbid growth; and one surgical writer of distinction alludes to a case of this as being remarkable, on account of the uncontrollable hemorrhage, (the patient dying on the table,) when a removal of only a *small portion* of the mass was attempted. Now, each lobe of the thyroid gland is supplied by two arteries usually, sometimes three; no matter how large the goitre, these arteries, however much enlarged, are found entering *the base* of the tumor into which they pass, and their branches ramify through its substance, comparatively few arterial vessels being found upon the surface, which is covered with a network of veins, oftentimes of large size, having extremely thin, delicate walls, and which inosculate freely with those in the substance of the gland. It had occurred to me that in the event of wounding these superficial veins, it might be

useless to litigate them, they are so tender, and operations might have failed which would have otherwise succeeded, from the attempt to control the hemorrhage completely during the dissection, in which the knife was perhaps too freely used; and that it was worse than folly to remove a part of a lobe, as almost invariably we should thus open scores of vessels whose bleeding would be uncontrollable. I believed that if they could be removed at all, it must be accomplished by keeping clear of the tumor as far as possible, and rapidly pushing down to the pedicle, which consists mainly of vessels and areolar tissue.

On the 19th of August last, Mrs. Klopf, aged forty-five, a highly respectable and intelligent German lady, residing in Albany, N. Y., consulting me for an enlargement of the right lobe of the thyroid gland; there was a slight enlargement of the left side. She first noticed the tumor twenty-six years ago, but it had never given her any trouble until within a year and a half, during which time it had rapidly increased to its present size. Its dimensions were now such that the common carotid was crowded behind the posterior edge of the sterno-mastoid muscle, where its pulsations were distinctly felt, and the trachea was pressed firmly to the left side. So great was the pressure upon these organs and the œsophagus, that any attempt to swallow or talk gave her terrible spasms of dyspnœa. She was unable to lie down, and required constant watching during her broken sleep, lest she should die of suffocation. See suffered very much from headache and giddiness, and could not stoop without losing her consciousness. All these symptoms had been for two months rapidly increasing in intensity, and for two weeks almost a daily aggravation had been noticeable. She had recently consulted the leading surgeons of Albany and some other cities in New York, all of whom told her that nothing could be done. At my request my colleagues, Professors Ford, Palmer and Storer, and Drs. Smith, Brewster and others, examined her; and all agreed that a few days at most would terminate her existence, while the thread was liable to snap at any hour. The patient was already aware of her imminent danger, and her only question was as to the *possibility* of relief. I told her in all probability the removal of the growth would be found impracticable; and that even if she survived the operation, which was not likely, the chances were a hundred to one that she would die of secondary affections; but still there was a bare possibility of success, and that while I would by no means advise an operation, yet if she, being fully aware of all the facts, insisted upon taking this desperate chance, I would undertake the removal of the tumor. I was

happy to have my own views as to the propriety of this advice endorsed by Dr. Storer. She immediately decided upon its being done, and at once. Accordingly, in the presence and with the assistance of Prof. H. R. Storer, Dr. F. K. Paddock, and several students, I made the operation in the following manner: the patient, being etherized, was placed in the ordinary position for ligation of the carotid, and a single straight incision was made over the tumor, extending from the inferior maxilla to the clavicle. The anterior external jugular vein, which ran close by the line of the incision, was not injured. The sterno-mastoid, which was spread over the mass like a thin riband, and the several fasciæ, were successively divided upon a grooved director, and the areolar tissue with the knife and fingers, the handle of the scalpel being employed much more freely than the blade. On raising upon the director the little thin layer of fascia immediately investing the tumor, several veins were wounded and bled profusely; this was controlled by the fingers of an assistant, and the delicate envelope carefully reflected from the gland; but although this was done with the utmost caution and gentleness, several other veins were ruptured. I now found that the entire growth was completely covered with a network of these vessels; and so thin and tender were their walls that the forceps tore, and the ligature cut their coats; and now, although the blade of the knife had not touched the surface of the tumor, so many of these veins were opened, that in spite of all the pressure that could be made, the hemorrhage was fearful. I now rapidly separated the areolar attachments, and in a few seconds was at the pedicle, which I found containing three large arteries whose pulsations were very distinct, and which were my guides for dividing the pedicle into three parts, which I also accomplished with the fingers. I immediately tied each third with a ligature composed of eighteen strands of sadler's silk, *saturated* with wax and *loosely twisted*. As I drew the last chord all hemorrhage instantly ceased. The pedicle was carefully divided close to the goitre, and it removed. During the dissection I found at one point the tumor quite firmly adherent to the sheath of the vessels; and while separating it, a gush of venous blood indicated the rupture of a large vessel. The finger of an assistant controlled it until the ablation of the bronchocele, when examination proved the internal jugular to be wounded. This was tied with a ligature of three strands of silk loosely twisted; no other vessels needed interference. The entire operation occupied twenty-two minutes.

After carefully sponging the wound and allowing the surface to glaze somewhat, the edges were united by interrupted sutures,

water-dressing applied, and she placed in bed. The extremities were cool, and pulse feeble but regular, and less than ninety per minute. She reacted nicely, and passed a more comfortable night than she had for weeks. The after-treatment consisted in perfect quiet, water dressings when agreeable, anodynes *pro re nata;* the exhibition of muriated tincture of iron, twenty drops every four hours, and as much rich broth, gruel, and milk as she would take at regular intervals. For several days there was considerable irritation of the œsophagus and trachea, but not enough to interfere seriously with deglutition or respiration. This passed away, and she recovered without a bad symptom. The last ligature came away on the twenty-sixth day; in another week the wound was entirely healed, and she is now in perfect health and restored to a happy family.

The weight of the tumor was one pound nine ounces avoirdupois.—*Med. Record*, Dec. 1.

EDITORIAL.

BOOK NOTICES.

Practical Therapeutics, considered chiefly with reference to articles of the Materia Medica. By EDWARD JOHN WARING, F. R. C. S., Surgeon in Her Majesty's Indian Army. Philadelphia: Lindsay & Blakiston. 1866.

We have greatly enjoyed the examination of this volume. It is indeed one of the most practical works that has ever attracted our attention. Combining the merits of Wood, Beck, Stille, and the U. S. Dispensatory, it forms a volume which no young physician can afford to be without.

The different articles of the materia medica are considered in alphabetic order, and the volume is concluded by a hundred pages devoted to certain medical agents and classes of medicines which cannot be arranged in any mere list of drugs. A very full index of diseases with their appropriate remedies is appended to the book. The whole book, by the judicious use of small type, is compressed within eight hundred pages, forming the best example of what is intended by the phrase *multum in parvo.* We hope that every medical student will provide himself with a copy of this invaluable treatise before he receives his degree of *Doctor Medicinæ.*

A Handy Book of Ophthalmic Surgery for the use of Practitioners. By JOHN Z. LAURENCE F. R. C. S., M. B., Surgeon to the Ophthalmic Hospital, Southwark, etc., etc., and ROBERT C. MOON, House Surgeon to the Ophthalmic Hospital, Southwark. 190 pages. Philadelphia: Henry C. Lea.

For those about entering upon the study of ophthalmology, this little work of Mr. Laurence and Mr. Moon will prove a most valuble text book. Such a work, carefully studied, will furnish the student with a thorough knowledge of the terminology and also the fundamental principles of the science, which will place him at great advantage in receiving the benefits of clinical instruction.

It is to be regretted that a work, so excellent, should not have been somewhat larger. Several chapters could have been a little more extended without impairing the character of the work as a "handy book."

We most heartily commend this work to the student and the profession at large.

For sale by Keen & Co., 148 Lake st.

Glaucoma and its cure by Iridectomy. Translated by C. A. ROBERTSON, M. D., of Albany, N. Y. From the French of Testelin & Warlomont.

Glaucoma is undoubtedly a very rare disease in the Northwest. The oculist will scarcely meet with one case in every thousand patients with diseases of the eye he is called upon to examine. A monograph on this affection, therefore, will probably fail to excite interest in the profession. And yet we can assure our readers, that a full discussion of the subject involves so many principles of great value in the study of ophthalmology, that a good monograph on the subject, merits careful study by every physician.

For presenting this translation of such a monograph, Dr. Robertson is deserving of the thanks of the profession.

Orthopædics: A Systematic Treatise upon the Prevention and Correction of Deformities. By DAVID PRINCE, M.D.

The very favorable manner in which the medical press gen-

erally have received this monograph, is an evidence that its author is very far from failing in his effort to produce an instructive and valuable work.

Dr. Prince is well known as a careful student of his favorite branch of surgery, and as a practitioner, rich in experience.

All who are interested in the subject of orthopœdic surgery will need this work of Dr. Prince.

For sale by Keen & Co., 148 Lake st.

A Practical Treatise on Diseases of the Skin. By J. MOORE NELIGAN, M. D., etc. Fifth American, from the second revised and enlarged Dublin Edition. By T. W, BELCHER, M. D., Dublin. Philadelphia: Henry C. Lea. 1866.

This instructive little volume appears once more. Since the death of its distinguished author, the study of skin diseases has been considerably advanced, and the results of these investigations have been added by the present editor to the original work of Dr. Neligan. This, however, has not so far increased its bulk as to destroy its reputation as the most convenient manual of diseases of the skin that can be procured by the student.

For sale by W. B. Keen & Co., Chicago.

Cerebro-Spinal Meningitis: Being a Report made to the Illinois State Medical Society, June, 1866. By J. S. JEWELL, M. D., Professor of Anatomy, Chicago Medical College, etc. etc. Chicago, 1866.

We have examined this treatise with the interest which its worth deserves. Every page gives evidence of thorough study and extensive research. As a well digested abstract of the previous literature of the disease this report has few rivals. The author's deductions and conclusions are marked by rare good sense and discrimination. Hoping that this may not be the Professor's last appearance before the medical public, we can cheerfully recommend his work to all who wish to study the interesting disease which forms its subject.

An Introduction to Practical Chemistry. By JOHN E. BOWMAN, F. C. S., late Professor of Practical Chemistry in King's College, London. Edited by CHARLES L. BLOXAM, F. C. S. Fourth American, from the Fifth Revised London Edition. Philadelphia: Henry C. Lea. 1866.

A new edition of this valuable little work.

For sale by W. B. Keen & Co., Chicago.

The Martyrs and Heroes of Illinois in the Great Rebellion. Biographical Sketches. Edited by JAMES BARNET. Illustrated with Portraits. 2d Edition. Chicago: 1867.

The popularity of this interesting volume is beyond question. It forms an enduring record of the lives of nearly one hundred of our heroes who counted nothing dear in comparison with the love they bore their country. From the great President to the humble private soldier all ranks are represented. Sketches of Surgeons Coatsworth and Lynn of Chicago are also here given, and no one can lay down this memorial without a feeling of tender regret mingling with that pride which in the hearts of his countrymen is the soldier's highest recompense.

For sale by James Barnet, 191 Lake street, Chicago.

TICKNOR & FIELDS offer new attractions to the readers of the *Atlantic Monthly.* Prof. O. W. Holmes will furnish another tale for the coming volume, and the best talent of New England will, as heretofore, continue to uphold the reputation of the magazine. The able historical articles which form so prominent a feature of the publication, are alone worth its subscription price. The other serials issued by this house continue to merit the good name which we have always claimed for them.

SUBSCRIBERS who desire to have their post-office address changed, must send information to our office at least one month previously. All communications for insertion in the Journal, should be forwarded before the 15th of the month previous to their desired appearance. Letters to which answers are desired must always contain a postage stamp.

CLINICAL INSTRUCTION IN CHICAGO.

The increased advantages for practical instruction at the bedside, which this city now affords, cannot fail to mark Chicago as an important point in our country for the character of its medical institutions.

The Mercy and Marine Hospitals afforded, for many years, almost the only facilities in the city for clinical observation. To these institutions many hundred of practitioners in the land will look with deep satisfaction, in remembrance of the knowledge of disease they gained under the guidance of instructors whose names are familiar in every village of the Northwest.

These hospitals still afford material of the greatest value for the student. But the opening of the County Hospital at the close of the past year, was the commencement of an important era in the history of medical education in Chicago. This hospital now contains nearly one hundred patients, presenting examples of almost every form of disease. Without doubt the number of patients will increase each year in proportion to the rapid growth of the city.

The recent very great improvements in the accommodations for the medical class, have added much, not only to the comfort of students, but to their means of observing operations, and of inspecting the different cases of diseases, and the *post mortem* specimens.

The number of autopsies is quite large, and presents a very important feature in the courses of instruction at the hospital.

The following synopsis of the annual report of the Medical Board will interest our readers:

Since the organization of the hospital, in January last, the number of patients under treatment has been 807. Of these, the number admitted into the medical wards was 505, into the surgical, 258; into the Eye and Ear Department, 44. From the medical wards the number discharged, cured, was 326; number relieved, 50; number of deaths, 87; remaining, 42. From the surgical wards the number discharged after cure was 208; relieved, 10; deaths, 10; remaining, 30; total, 257.

From the Eye and Ear Department there have been discharged, after cure, 27; relieved, 5; transferred to medical

department, 1; absconded, 3; remaining, 8; total, 44. Number of births in the lying-in rooms 34.

During the month of October a dispensary for the relief of the outside poor was opened in the basement of the hospital, and the number thus supplied was 85. The dispensary is open every day during the week, Sundays excepted, from 1 to 2 o'clock in the afternoon, for medical and surgical patients. Patients with disease of the eye and ear are admitted at 11 o'clock in the morning.

The high rate of mortality among the inmates is accounted for by a combination of causes, which in public institutions like this, from which the homeless victims of incurable diseases cannot be excluded, always operate to swell the lists of deaths beyond the figures which obtain in those hospitals where only acute diseases are treated. Of the deaths which occurred in the medical wards, 45 were of chronic incurable diseases. Eight inmates have died of cholera, and about twenty persons have been admitted in a moribund state whose death occurred in a few hours after being received.

The hospital is well provided with ample means for service, and is throughout in most excellent condition.

The college clinics also afford facilities for instruction by no means insignificant, and are fully attended by the different classes in the city.

In addition to these institutions may be mentioned the Chicago Charitable Eye and Ear Infirmary, which is open for all students, who wish to gain a knowledge of the diagnosis and treatment of ophthalmic and aural diseases.

The facilities for instruction thus offered in these departments of medicine and surgery, are probably inferior to those of no city in the Northwest. More than five hundred patients, with diseases of the eye and ear, applied to the Infirmary for treatment during the past year.

RUSH MEDICAL COLLEGE.

The commencement exercises of the *twenty-fourth* session of this College took place on the evening of October 3d.

The prospects of the school were never more flattering. A large class had already assembled, with every assurance that its members would be much augmented in a few days.

The whole appearance of the class, the expressions of earnestness, and evident manifestation of a desire on the part of its members to seek the knowledge which would best fit them for their duties as true physicians, could not but impress their teachers with the conviction that their labors would not be in vain.

No one could dream of the deep affliction which was so soon to fall upon those who were then assembled. In less than one week, the hand of death had taken away its most impressive lecturer and teacher, whose great intellect, deep wisdom, and almost unbounded professional experience, made him a tower of strength in the Institution he had founded so many years before.

In consequence of the death of Prof. Brainard, the exercises of the College were suspended for a few days.

At the present time, as we are informed by the Secretary of the Faculty, there is a larger class now present than ever before at a corresponding period of the course.

Friends of the school may be interested to know that the lectures on surgery are delivered by Prof. Powell.

In addition to the ordinary course of instruction as presented in the annual announcement, and the clinics described on another page, may be mentioned the "Quiz" class of Prof. Rae, and that of Drs. Powell, Lyman and Lackey.

CITY MORTALITY.

The following is the statement of the Health Officer of the city mortality for the month of November:

Died in South Division,	137
Died in West Division,	172
Died in North Division,	73
Total,	382
Total in November, 1865,	299
Total in October, 1866,	1170

Ages.—Under five years, 173; from five to ten, 20; from

ten to twenty, 25; from twenty to thirty, 89; from thirty to forty, 36; from forty to fifty, 40; from fifty to sixty, 15; from sixty to seventy, 12; from seventy to eighty, 11; from eighty to ninety, 2; from ninety to one hundred, 1; unknown, 8. Total, 382.

Nativities.—Chicago, 162; United States, 72; Canada, 7; Denmark, 1; England, 5; France, 1; Germany, 51; Ireland, 39; Italy, 2; Norway, 15; Sweden, 1; Switzerland, 1; Scotland, 6; Newfoundland, 1; unknown, 18. Total, 382.

Causes of Death.—Accident, 16; Asthma, 3; Apoplexy, 1; Burned, 3; Cancer, 8; Childbirth, 4; Cholera, 12; Cholera Morbus, 4; Cholera Infantum, 1; Congestion of Brain, 6; Congestion of Lungs, 4; Consumption, 39; Convulsions, 47; Croup, 11; Cold, 1; Disease of Brain, 1; Disease of Heart, 2; Disease of Liver, 2; Disease of Kidney, 1; Disease of Hip, 1; Disease of Lungs, 2; Disease of Throat, 1; Delirium Tremens, 8; Decline, 3; Dropsy, 9; Diarrhœa, 5; Diphtheria, 12; Dysentery, 2; Drowned, 2; Erysipelas, 3; Intermittent Fever, 8; Scarlet Fever, 6; Spotted Fever, 1; Typhoid Fever, 18; Fever not stated, 4; Gun-shot wound, 3; Hemorrhage, 3; Hydrocephalus, 3; Inflammation of Brain, 9; Inflammation of Bowels, 4; Inflammation of Lungs, 13; Inflammation of Liver, 1; Intemperance, 4; Measles, 1; Marasmus, 1; Old Age, 12, Phthisis Pulmonalis, 2; Paralysis, 3; Still-born, 8; Summer Complaint, 5; Scald, 1; Teething, 1; Tuberculosis, 2; Diabetes, 1; Ulcer, 1; Whooping Cough, 17; Wound, 1; unknown, 36. Total, 382.

As we close the twenty-third volume of the Journal, our thanks are due to the numerous friends who have assisted us by their subscriptions and by their good wishes. A few names on our list of subscribers are still disfigured by the black cross of unpaid debt, but the majority have testified their appreciation of our efforts by a prompt settlement of dues. As no physician in the Northwest can afford to be without the Journal, and as we do not propose to retain the names of delinquents upon our subscription lists, we hope that these few tardy debtors will no longer copy the example of that class of their patients who do not hesitate to receive, without rendering compensation or thanks for, professional services.

WANTED, the July and August Nos. of the Journal, for 1865.

MARRIED.—In this city, Dec. 4th, at the residence of J. W. Sykes, Esq., by Prof. S. C. Bartlett, D. D., BENJAMIN DURHAM, M. D., to Miss LUCY M. CLARK, both of Chicago.